# Psychopathology in Women

Incorporating Gender
Perspective into Descriptive
Psychopathology

Margarita Sáenz-Herrero Editor

Second Edition



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**Second Edition** 



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ISBN 978-3-030-15178-2 ISBN 978-3-030-15179-9 (eBook) https://doi.org/10.1007/978-3-030-15179-9

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#### **About the Editor**

Margarita Sáenz-Herrero was awarded a degree in medicine at the University of Valladolid. She received her PhD in medicine in 2004 from Complutense University in Madrid. She is a specialist in Psychoanalytic Psychotherapy at Comillas University and a specialist in Integrative Psychotherapy at Alcalá University. In 2009, she received a Specialization in Forensic Psychiatry.

She has been an Associate Professor at Complutense University until 2005 where she taught undergraduate and postgraduate students. Since 2009, she is teaching medical students at Basque University in Vitoria. She has also been a tutor of psychiatric residents since 2009 at Alava University Hospital, and she is currently tutoring medical residents in psychiatry at Cruces University Hospital in Bilbao.

She has worked with Professor López-Ibor at San Carlos University Hospital in Madrid. During this period she received a grant to attend the Eating Disorders Program with Professor Katherine Halmi at New York Hospital, USA.

She has worked in different hospitals such as Sant Boi Psychiatric Hospital in Barcelona and Alava University Hospital until 2015 when she started working at Cruces University Hospital in Bilbao.

As an author, she has published more than 20 international posters and communications both nationally and internationally. She has contributed as speaker more than 50 presentations in national and international congress. She has contributed several articles in magazines worldwide and 20 chapters in books. She has edited several books. In 2015, she edited *Psychopathology in Women, a Gender Perspective* with Springer.

Her recent research focuses on Gender Perspective as a Paradigm in Clinical Psychopathology, in the use of psychotherapeutic approaches in daily clinical practice. She has actively participated in several research projects and has led different projects. She collaborates as a researcher at Cibersam, led by Ana González-Pinto, and she is interested in promoting research projects that include the gender dimension, not included into scientific research so far.

She has participated in the organization and has been part of scientific committees of different congresses and conferences in the Spanish Society of Psychiatry. She is a member of the Neuropsychiatry Association of Euskadi and vice president of the Society of History and Philosophy of Psychiatry. She is a vocal member of the Spanish Society of Psychiatry. At present, she is an advisory board member at IAWMH.

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Since 2014, she coordinates and participates in the Equality Conferences in Bilbao, promoting equality in psychiatry in Álava Hospital and Cruces University Hospital. She has contributed to Gender Violence Basic Course for health workers in Osakidetza, and she is included in a Preventing Gender Violence Group.

She is nowadays participating in the standards applicable worldwide to services for Victims of Violence against Women, with Emakunde and Basque Government, through a collaboration agreement with the United Nations Project.

#### Introduction

I am honored to write the Introduction to this beautifully edited second edition of Psychopathology and Gender. Prof. Margarita Sáenz-Herrero and her team have successfully collated a comprehensive array of articles that elucidate the difficult and not well-known gender-related and gender-dependent differences in the epidemiology, course, and prognosis of mental disorders.

Gender, which is "the socially constructed roles, behaviors, activities, and attributes that a given society considers appropriate for boys and men or girls and women," [1] has been recognized as a powerful social determinant of health. The power relations between the genders are at the root of gender inequality. As Sen et al. put it, "gender inequality determines whether people's health needs are acknowledged, whether they have voice or a modicum of control over their lives and health, whether they can realize their rights" [2].

A gender perspective looks at the impact of gender and gender relation on people's opportunities, social roles, and interactions. A perspective that acknowledges and analyzes the impact of the uneven distribution of resources and unequal access to services (such as education and healthcare) is indispensable for clear conceptualization of the current status of women's (and girls') health [3]. Gender relations determine access to resources and to power, with pervasive implications for everyday life, including the way technology and science are advanced and who has access to the development, the control, and the enjoyment of such advances.

A central self-evident concern is women's lack of control over resources, and even over her own body: in most medical, health (including mental health), and prevention issues related to women the core problem is male-female power relations—including physical, psychological, and sexual violence—and not the lack or inadequacy of services, technology, or information [4].

Depression is the second cause of years lived with disability in the Western Hemisphere [5]. Because it is recognized as a disease that afflicts women twice as often as men, services to recognize and treat it do not receive the highest priority in terms of budgetary allocation.

The distribution of mental disorders in the European Union shows that in most countries women suffer more from lifetime mental health disorders than men, and that this difference is higher in the Southern European countries. Income however is not related to a higher prevalence of mental health disorders, but age is and so is family composition. Married men show fewer mental health problems, but widowed and divorced women

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have the higher risk among females. Distress is more common in women than in men, but the differences are small in Northern European countries, as well as in Latvia and Slovakia [6]. What do they have in common? They all belong to Group 1 of the Gender Inequities Index (except Latvia). Group 1 comprises countries with high equality in HDI achievements between women and men (absolute deviation of less than 2.5 percent) [7].

Clearly, women's health, and in our discussion mental health, needs to be appraised and understood in terms of the patriarchist nature of our societies, as Doyal posited in 1994 [8].

Literature on health sciences has a role mostly in health science education and research. This volume will certainly make a great contribution to diminish the sexist orientation of medical training. Gaps and biases have been described in undergraduate, graduate, and continuing education as well as in research.

The biological determinism that reigns in undergraduate medical education, even in a context where most students are women, has precluded awareness and discussion of the social determinants of health (one of which is gender) [9], and the curriculum in general does not address women's health concerns from a comprehensive perspective: maternal mortality—preventable death—is still a major cause of premature death and important issues as human rights, legislation to protect women from violence, or ethical issues arising from new reproductive technologies are not included.

There are many problems with the choice of topics for research and the barriers for women to advance in academic careers where published research is an integral important expected outcome. In psychopharmacology, even as perinatal depressive disorders are recognized and frequent and powerful determinants of the future welfare of both mother and child, the management is done with scant evidence as no clinical trials are conducted in pregnant women. This is a very serious issue.

Gender-sensitive care is well informed and considers the asymmetrical power relations the woman comes from and does not shy away from looking at the probable violence she endures and considering its on her well-being [10]. It also acknowledges that the practitioner also plays a role in widening the power gap or narrowing it to allow the woman to become a partner in her care. This requires that the user receive all the information that she needs to feel safe and confident.

This book contributes valuable state-of-the-art information about sex and gender as multidimensional concepts; corporality: how important the body, body image, and its distortions are for women; the interface between mind and hormones and the disorders related to the periods of hormonal change; how gender introduces nuances in the most common mental disorders; a very exciting chapter on psychopathology, art, and gender; and a discussion of gender bias in research.

The quality of the contributions is assured by the first-rate choice of authors, who are well-known researchers, academics, and practitioners from various parts of the world. I am sure this editorial effort will bring a lot of intellectual pleasure to the reader.

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#### References

 American Psychological Association. Answers to your questions about transgender people, gender identity, and gender expression. 2011. http://www.apa.org/topics/lgbt/transgender. aspx.

- 2. Sen G, Ostlin P. Unequal, unfair, ineffective and inefficient gender inequity in health: why it exists and how we can change it. Final Report to the WHO Commission on Social Determinants of Health September 2007 Women and Gender Equity Knowledge Network, p. 12.
- 3. Rondon MB. A gender perspective is fundamental to improve women's health. J Women's Health. 2010;(11):1949–50. Epub Sep 16, 2010. https://doi.org/10.1089=jwh.2010.2402.
- Fee E, Krieger N, editors. Women's health, politics, and power: essays on sex/gender, medicine, and public health. New York: Baywood Publishing; 1994.
- Murray JL, Lopez AD. Measuring the global burden of disease. N Engl J Med. 2013;369:448– 57. https://doi.org/10.1056/NEJMra1201534
- World Mental Health Surveys Initiative (WMH-EU) Mental health in Europe: a gender perspective. http://www.eu-wmh.org/PDF/FactSheet\_Gender.pdf.
- 7. United Nations Development Program. Human development reports. Table 4: Gender Development Index at http://hdr.undp.org/en/composite/GDI.
- 8. Doyal L. Women, health, and the sexual division of labour: a case study of the women's health movement in Britain. In: Fee E, Krieger N, editors. Women's health, politics, and power: essays on sex/gender, medicine, and public health. New York: Baywood Publishing; 1994.
- 9. Johnson J, Stewart DE. DSM-V: toward a gender sensitive approach to psychiatric diagnosis. Arch Womens Ment Health. 2010;13(1):17–9. https://doi.org/10.1007/s00737-009-0115-0.
- 10. From Marianism to Terrorism: the many faces of violence against women in Latin America. Arch Womens Ment Health. 2003;6:157–63.

# Part I General Aspects

## Women Mental Health All over the World: Sociopolitical Aspects of Gender Discrimination and Violence: Immigration and Transnational Motherhood

1

#### Magdalena Marino and Kristina Jausoro

#### **Abstract**

Along the next chapter, we will discuss the specific challenges that women face in the health system, including the lack of access that suffer much of the world's female population. We will defend a change of approach to the women's health issues whenever they need to use the health system.

To thereby, we will describe some gender inequalities that appear from the family microsystems to social and political macrostructures of power and world organization that are some causes behind the female pathology. We refer here to some of them that particularly affect women: gender violence in all its forms, including poverty, human trafficking, and violence used against women during armed conflicts. In conclusion, we talk about lack of justice.

Since we are talking about women mental health around the world, we review the feminization of migration, analyzing the positive and negative aspects of it, and with special emphasis on transnational motherhood and its impact of women.

After analyzing these aspects, we suggest some recommendations to mental health professionals for possible lines of work from the health system, with the objective of making a change possible, a change based in the empowerment of women, considering health professionals as active agents and enablers of that empowerment.

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All symptom is, in essence, a precipitate of meanings related to different dimensions of human life: childhood history, psychic suffering, intersubjective conflicts (couple or family), social failure, situations of helplessness, conceptual breaks with reality, and are presented as manifestations of a malaise that cannot be reduced to an absolute determinism, whether biological, psychic or cultural. Epidemiological studies reveal a female, general and mental, excess morbidity in adulthood, which highlights the need to reflect on this situation.

(Tubert, 2001)

There is no society or community in the world where women are treated equally as men, having inevitable consequences in their health. Thus, "women's mental health can only be understood if their life's context is taken into consideration; biological, sociocultural and the person" [1].

The World Federation of Mental Health announced in 1996 that often psychological stress in women has social origins; discrimination against women in employment, education, food distribution, health access, and the resources to economic development turn them vulnerable to physical and sexual violence, psychiatric disorders, and psychological stress.

According to the World Health Organization (WHO) report "Women and Health" 2009, women and men face many similar health problems; nevertheless, the differences are so great that women's health requires special attention [2]. Taking into account the same report, it is fair to say that some disorders affect to the same extent men and women, only women face more difficulties obtaining the health assistance that they need. Gender inequalities in education, freedom, or income, for example, are the ones that limit girls and women to protect their own health.

Health problems faced by women share common features worldwide, but also many great differences are observed, determined by different living conditions. Girls and women's health is influenced by social and economic factors such as access to education, family, wealth, and place of residency. These differences are established not only in developing countries but also in the developed ones.

The differential prevalence of psychological disorders has led to investigate more accurate differential diagnosis that take into consideration the importance of culture in the construction of subjectivity. Defending the need to work with differential diagnosis does not imply establishing differences and defending unequal illnesses but presupposes taking into consideration living conditions and different risk factors affecting men and women. We need to develop approaches that consider the range of discrimination suffered by women, and these approaches must include the effect caused by poverty, lack of cultural resources, violence, and social devaluation [3].

To achieve that approach work is needed to shed the gender bias underlying theoretical models and health practice. The gender biases, as pointed out by Carmen Valls, are [4]:

Extrapolate to general population (meaning women) research results obtain with
male population. Assuming that risks factors and health protectors are the same
to everyone makes us suppress the gender differential morbidity and mortality.

- The belief that men and women get ill in different ways. The weight of this belief
  is so great that many of "the women's problems" are sent from primary care or
  women's health centers, narrowing women's health in reproductive health. Other
  symptoms are usually ignored, and after repeated demands of medical attention,
  analgesics or anxiolytics are prescribed, as a result the demand is psychologized
  and medicalized.
- The clinical approach, especially biomedical and pharmacological, derives in framing the claim as pathology.

In this context, "the increased use of psychotropic drugs for women can be a source of self-regulation of the exogenous elements in order to reduce discomfort" [5].

It is true that in the last decades, the health sciences have evolved allowing visualizing some of the problems of women but much work remains. To contribute in breaking gender bias, professor Valls (2000) brings forward five proposals:

- Democratize knowledge production. Health research should consider experimental subjects both men and women.
- 2. The research designs in addition to the biological differences between sexes must also consider gender and the positions and social roles they each play.
- 3. To achieve better diagnosis, family life and work conditions should be taken under consideration.
- 4. Sex is a demographic control variable, and gender should be considered a relational analytic variable.
- 5. Innovative designs should be implemented to detect the attitudes of health workers during their clinical practice in order to detect any inequalities.

From the conviction of the universal right of all people to a public health system that ensures their welfare, this system should work in all scopes incorporating the gender perspective transversely. This involves two main axes of action:

- Enhance the participation and role of women as active agents in the production of her own health.
- The incorporation of interdisciplinary teams (physicians, psychologists, social
  workers, social educators) trained in addressing health issues from the perspective of gender. It would have to boost the collective empowerment of health system workers, with the objective to introduce the gender perspective in their daily
  practice, training them and stripping them of the gender bias aforementioned.

Interdisciplinary work is not only essential in the field of health but also the answer to many of the problems that arise in the health of women. Women's health should be addressed from the social health space where different institutions (health, justice, social services, education, employment, etc.) are involved.

#### 1.1 The Social Health Approach

The traditional structure of health and social services is not well suited to the mixed nature of women's needs. Between the health and social services scopes, confluence zones are especially confusing and present difficulties of coordination because they are dependent on various government agencies. These difficulties might have a negative impact in people's quality of life.

There are elements that are considered fundamental and defining in terms of social health approach:

- It is a response to complex needs that require mixed interventions, social and health, simultaneously or sequentially, but always complementary.
- It has the objective to guarantee the continuity of care avoiding mismatches, gaps, or waiting time between the different services.
- It rules by the interdisciplinary principle.
- It is based on an integral intervention approach focused in the person and oriented to guarantee the maximum level of quality of life and autonomy.

The principal objective of social health approach is a response to complex needs. There are certain populations for whom, because of their nature and their health and social characteristics, it is required a maximum coordination between both areas. Among these population groups are the elderly dependent and people with chronic disease (major disabilities, mental disorders, etc.). To these groups we can add those whose diagnoses are conditioned to their gender role, highlighting the urgent need of coordination regarding gender violence.

Much are the advantages of social health approach; we emphasize the main ones:

- Introduces greater facilities in the articulation of services of different nature in the context of community action, therefore responding better to new social demands
- Favors the permanence in the community, articulating the means to prevent hospitalization or long-term residencies
- Offers greater possibilities of developing an interdisciplinary approach which enriches professional practice
- Facilitates access to the most vulnerable population groups that other ways present significant barriers in access to care due to social isolation
- Favors a more rational use of resources and higher levels of efficiency and effectiveness in its use
- Promotes continuity of care
- · Favors detention of dysfunctions at different levels and scopes of care

If we consider that women's health is conditioned from childhood by gender role imposed, treatment and approach must come from the social health scope and with the incorporation of the several disciplines in the both work teams primary and specialized care.

#### 1.2 Gender Violence: A Public Health Problem Around the World

The United Nations defines violence against women as "any act of gender-based violence that results in, or is likely to result in, physical, sexual, or mental harm or suffering to women, including threats of such acts, coercion or arbitrary deprivation of liberty, whether occurring in public or in private life." [6]

The Declaration of Violence against Women as a social problem has been accompanied by the recognition by the health sector of violence against women as a public health problem.

In 1996, WHO declared gender-based violence as an international priority for health services, due to its grave consequences on health and to its magnitude and the significant economic impact involved.

In most of the literature on the subject, there is agreement that violence against women takes three main forms: physical, psychological, and sexual violence [7].

However, and although this is the most common differentiation, based on the proposal of the "Expert Report on Combating Violence Against Women" of the Council of Europe [8], there frequently are other forms of violence, giving rise to the description of the following types:

- Physical violence: all action carried out voluntarily which causes or may cause damage and personal injury to women. It includes the use of physical force or objects to attempt against their physical integrity.
- Sexual violence: any attempt against the sexual freedom of women by which they are obliged to bear or carry out acts of sexual nature. It includes any act or sexual expression carried out against their will that violates their physical or emotional integrity such as jokes, rude expressions, unpleasant comments, obscene phone calls, undesirable sexual proposals, forcing them to watch pornography, any act or sexual intercourse not consented to by women (harassment, rape, incest), any relationship or sexual act deemed by women to be humiliating or painful, or the obligation to prostitute themselves.
- Psychological violence: any action, generally of verbal or economic nature, that causes or may cause psychological damage in women. It includes the use of mechanisms of control and communication that threaten women's psychological integrity, well-being, self-esteem or consideration of, in both public and private, in front of other people, such as to denigrate them, to despise what they do, to make them feel guilty, to treat them as if they were slaves, to make unpleasant comments about their physique, to humiliate them in public or in private, to create a bad reputation about them, to force them to be accountable for their relationships and contacts with other people, to force them to break off with friends, to prohibit them from talking to people of the opposite sex, to show jealousy of friendships, to limit them in their living space or not to respect it, to make jokes (sexist jokes of denigrating nature), and to undervalue their contributions or executions, insults made in public or in private, threats and intimidation, emotional blackmail, threats of suicide if the couple expressed their desire to separate, etc.

- Economic violence: inequality in access to common resources. It includes denying or controlling women the access to shared sources of money, to generate their economic dependence; to impede their access to employment, education, or health, denying their rights of property; etc.
- Structural violence: intangible and invisible barriers that impede women's access
  to basic rights. It includes the denial of information to their fundamental rights,
  the relations of power in schools or at work, or discriminatory legislation in all
  social spheres.
- Spiritual violence: the destruction of women's cultural or religious beliefs through punishment, ridicule, or the imposition of a system of beliefs that are alien to their own. It includes the submission and invisibility of women's cultural or religious beliefs or analyzing them from an ethnocentric perspective.

When talking about gender violence, there is a tendency to equate it to the most common and proxime to our context: intimate partner violence and sexual violence in the social environment. WHO estimates that almost one third of all women have experienced intimate partner violence or sexual violence [9]. Globally, 38% of murders of women are committed by their intimate partner, this number does not include the amount of women that commit suicide as a result of abusive relationships. From our experiences as workers, family members, friends, and members of society, and with emerging powerful movements like #MeToo, these two forms of gender violence are well known and described.

However, intimate partner violence is only one of multiple forms of violence against women. Socio-economic inequalities and traditional and patriarchal systems create and perpetuate other perverse social and structural forms of violence against women. Unfortunately, there are multiple forms and examples of social and structural violence against women around the world that we could discuss, but we will focus on three that we find extremely perverse and distressful: poverty, slavery and human trafficking, and use of women as weapon in wars.

#### 1.2.1 Defining Poverty and Its Gender Distribution

Poverty is the worst form of violence—Mahatma Gandhi

Overcoming poverty is not a task of charity, it is an act of justice—Nelson Mandela

The association between poverty and mental disorders appears to be strong and universal, occurring in all societies irrespective of their levels of development of the country [10]. Traditionally, poverty has been defined in pure economic terms of amount of income per day. Thus, poverty means much more than income.

Poverty was defined in the UN's Human Development Report (1997) as the denial of the opportunities and choices most basic to human life—the opportunity to lead a long, healthy, and creative life and to enjoy a decent standard of living, freedom, dignity, self-esteem, and respect from others [11]. The lack of opportunities and

choices for women and girls due to gender are innumerable. In terms of education, women continue having less access to basic education and even less access to higher education [11]. In the labor market, women in all levels face daily salary inequality, exploitation, discrimination, and lack of equal and fair opportunities. Only 22% of the world's parliament is women, and in general, the presence of women in positions of power and decision-making shows that sadly the "glass ceiling" remains a reality [12]. These factors, among other structural and legitimated gender discrimination forms, have contributed to feminization of poverty [13].

Poverty and its structural causes limit women's ability to be active and productive members of society, to realize their potential and ultimately to be mentally as well as physically healthy [10]. The negative social and economic factors associated with poverty furthermore act as a barrier to health and mental health-care services. Similarly, restrictions in women's ability to participate fully and actively in the community, be part of the decision-making process on issues affecting one's life, or have the opportunity to improve one's social and economic situation and status also adversely affect the mental health of women. Mental health professionals have the responsibility to acknowledge the challenges and external barriers that poverty—in its broad definition—brings to women. As well, an approach focused on strengths and resilience, instead of just psychopathological personality traits that further stigmatize women.

The eradication of global poverty requires a strong change on the deep-seated structural causes of poverty that requires extensive discussion, outside of the scope of this chapter. However, it is important to demand special attention to structural violence and discrimination against women, a solid compromise with the promotion of women's human rights, from the basic one of education, and the incorporation of gender equality and mainstreaming into all legislation to decrease gender-related poverty.

#### 1.2.2 Human Trafficking

Trafficking demonstrates the weaknesses of global capitalism and the disparity caused by the economic rules of the countries most powerful; but mostly reveals normalization of human cruelty and cultural processes that have strengthened

-Esclavas del poder, Lidia Cacho, [14]

Human trafficking is defined as the recruitment and movement of persons by threat, force, coercion, or deception for the purpose of exploitation (sexual exploitation, forced labor, or slavery) [15]. Due to its underground nature, statistics on the scale of the problem are unreliable; however, the International Labour Organization (ILO) estimates that globally 2.5 million persons are currently in situations of exploitation as a result of trafficking and that another 1.2 million are trafficked annually [16]. Human trafficking is a particularly abusive form of migration and one of the most severe human rights violations in the world. Reports from around the world include descriptions of the extreme forms of physical, psychological, and

sexual abuse experienced by persons who are trafficked in the sex industry and exploited in multitude of labor settings, including construction, agriculture, and domestic servitude [17].

While trafficking affects both men and women, it is not a gender-neutral phenomenon. Up to 80% of trafficked persons are disproportionately women and girls [18]. Women are particularly vulnerable to trafficking due to their social and economic position, as well their position in the migratory process. Poverty, unemployment, a high demand (and low regulation) for cheap labor and services in female-designated sectors of work, discriminatory immigration laws, and a cultural context in which violence against women is tolerated are the most important and recognized causes of women trafficking [13]. These causes have a common root, gender inequality, and the lack of rights afforded to women. By failing to protect and promote women's civil, political, economic, and social rights, governments create situations in which trafficking arise. A real political response and compromise with the respect, protection, and promotion of women's human rights in all the arenas (social, economic, political, educational, and health) is the first step to ensure an end to trafficking in women.

Until a solution is found, the United Nations requires governments to implement measures to promote the physical, physiological, and social recovery of human trafficking victims, including medical and psychological responses to trafficked people's health needs [15]. For meeting these international agreements, countries will have to provide psychological support services for trafficked persons. Yet, the health and mental health consequences and potential public health implications of human trafficking have generally received little attention; the mental health community is just beginning to respond to these persons' needs [17].

Human trafficking victims enter in a circle of terror, violence, and cruelty that denies them their right to safety, dignity, freedom, equality, health care, work, and education, among others. Often, victims come from a previous history of genderbased violence and are revictimized. As a result of such exposure-and reexposure—to trauma, the limited research on the mental health consequences of trafficking consistently report high levels of symptoms indicative of anxiety (48-97.7%), depression (54.9–100%), and post-traumatic stress disorder (PTSD) (19.5– 77%) [17]. It is also common the comorbidity among these disorders [19]. The literature describes a broad range of reactions related to trauma: fear, guilt, rage, sense of betrayal, distrust, helplessness, shock, suspicion, feeling lost, sense of apathy and resignation, extreme forms of submissiveness to authority, maladaptation in social situation, and loss of personal autonomy [20]. The length of time spent being exploited and the level of violence and injuries sustained while trafficked increase the risk of suffering anxiety, depression, and PTSD symptoms [17, 19, 21]. Women who were trafficked for sexual exploitation had a higher prevalence of PTSD in comparison to women that were trafficked for labor exploitation [22].

When authorities encounter trafficked women, they often suffer physical pain and exhaustion, confusion, disorientation, amnesia, strong emotional reactions, and inability to recall events or to communicate that may affect their ability to obtain assistance [23]. Even after being liberated from a trafficking experience, women

and girls face huge stressors, including entering in a complicated legal system in order to obtain assistance, possible participation in criminal proceedings, immigration and asylum procedures, stigma associated with sex work, and being reunited with families who may be unaware of their experience—and when they are aware often reject them. Similarly, women may experience the same concerns about poverty and unemployment that caused them to leave their home in the first place [19]. Subsequently, the lack of social support and additional life stress upon their return may affect the symptoms severity.

The severity of symptoms and the risks and challenges victims face after their trafficking experience indicate that treatment services should be available immediately [21]. However, some victims are quickly deported to their country of origin, finding the same context of poverty and discrimination that they had left and where assistance is inexistent, or they are forced to participate in criminal investigations as a condition to assistance. As consequence of the abuse of power suffered and intensity of trauma, the engagement and creation of a therapeutic relationship may be challenging. In the first period after trafficking, a sensitive approach is required to address problems of memory, the lack of trust, and the fear to talk about their experience. It is essential to assure trafficking survivors a period of recovery and reflection before making decisions about their future and well-being (like coming back with their family or participating in criminal investigations).

If multidisciplinary teams are usually important, they are crucial in this field. These interdisciplinary teams should involve law enforcement personnel and social agencies that provide legal, educational, vocational, economic, and other vital life resources. However, this collaboration should not liberate clinicians for a general awareness of immigration policies.

Mental health professionals working with trafficking survivors must have specific training in trauma, especially sexual and interpersonal trauma [20]. Most present-day treatments currently follow the direction of trauma-approach treatments for victims of domestic violence, sexual assault, torture, and immigrants and refugees. In addition, clinicians need a culturally sensitive approach and multicultural competence required to work with immigrants for providing appropriate care to these women.

We cannot forget that human trafficking is not only a personal experience but also a community and global matter that goes against social justice and human rights, and we as professional and as human beings have a responsibility to combat it.

#### 1.2.3 Women in Armed Conflicts

Since 1945, there have been an estimated 150 wars in the world [24]. Despite the new techniques of warfare, the sophistication and precision of weapons, and international conventions that forbid civilians as targets, civilians die in greater numbers than soldiers do. Children and women are the most vulnerable and the first victims of these wars. Even when conflicts officially end, violence against women continues and often worsens [25].

Violence against women during wartime is recognized by international humanitarian organizations as a fundamental violation of human rights, a primary public concern, and a major impediment to peacemaking, reconstruction, and development of war-torn countries [25]. The United Nations passed in 2000 the Resolution 1325 on women and peace and security. This historic resolution calls for the equal participation and full involvement in all steps of conflict resolution and peace building, as well on promotion and maintenance of peace and security. It also demands to all parties in conflict to take special measures to protect women and girls from gender-based violence, particularly rape and other forms of sexual abuse, in situations of armed conflict [26]. This resolution seeks to give a voice to the silenced women survivors and to include the perspective of women in the construction of peace, but sadly it had (and still has) a very limited impact.

Historically, sexual violence against women during war can be tracked from the eleventh century until these days. For centuries, sexual violence against women has been rarely prosecuted and often even considered "an unfortunate product of war" [27]. In the Resolution 1325, it is still considered gender-based violence. In June 2008 the United Nations in its Resolution 1820 denounces that "women and girls are particularly targeted by the use of sexual violence, including as a tactic of war to humiliate, dominate, instill fear in, disperse and/or forcibly relocate civilian members of a community or ethnic group" [28]. This means, in the context of a war, sexual violence is a deliberate (and effective) military weapon to tear apart individuals, families, and communities.

In 2009 the UN Security Council openly recognized, in the voices of Hillary Clinton and Ban Ki-moon, that violence against women had not diminished but even increased in some places, being used as a brutal weapon in armed conflicts with total impunity. Two new resolutions (S/RES/1888 and S/RES/1889) were approved asked for the immediate cessation of all acts of sexual violence and reiterating the importance of women's participation in peace processes and promoting women's leadership, respectively [29, 30]. These resolutions, along with the S/RES/1960 on 2010, repeat and strength same petitions.

In 2013 two new resolutions in *women and peace and security* were adopted. In June 24, 2013, the Council adopted the Resolution 2106 defining sexual violence as a crime against humanity and encouraging member states to adopt a national penal legislation to prosecute them [31]. In October 18, S/RES/2122 supports the petition of women's leadership and request from the UN a more active involvement in protecting human rights and pursuing gender equality and empower of women in conflict areas [32]. The Secretary has reported some advance in this fight but still far away from an, at least, gender-equilibrium respect of women and girls' human rights.

If we do not have the capacity to prevent war, we have a collective responsibility to better understand and treat its psychiatry, medical, and social consequences

Michael Hollifield (Hollifield, 2005, p. 1284) [33]

Hagen (2010) describes five characteristics that distinguish war sexual violence against women from other kinds of sexual violence during "peacetime" [34]:

- 1. Used at a massive scale.
- 2. Approximately 90% occur in the presence of other women to infuse fear, in front of other soldiers to promote solidarity, and other community members to show power and total suppression.
- 3. Has an extreme level of brutality.
- 4. Often includes slavery.
- 5. Serves as ethnic cleansing.

The consequences of these brutal attacks against women are felt in multiple levels. In the individual level, women that survive war rape suffer multiple and severe forms of physical and psychological trauma. From severe and permanent physical damage and disabilities, AIDS, to post-traumatic stress disorder, depression, anxiety, sense of helplessness, and a total destruction of self-identity and sense of belonging, the wounds of war rape in an individual are atrocious [27]. Adding to these wounds and to the personal shame and humiliation that public, brutal, and massive rapes bring, many women suffer the rejection of their own family and the community due to sociocultural values regarding sexuality [25]. In a macro level, these women face a destroyed society that does not have the economic, political, socio-cultural, and health-care infrastructure to assist them, and they are forced to migrate into refugees' camps where education, work, and recovery opportunities are limited. Displaced and removed from their community, they are condemned to a life of extreme poverty and complete dependence that places them at risk of further victimization [34].

As the consequences are felt in all dimensions of a person's life, interventions should also address the full impact in all areas. Refugees and war survivors in destroyed societies have multiple physical and psychiatric symptoms, cultural individualities, language barriers, and poli-trauma that complicate illness experience and diagnosis from a traditional western perspective [33]. Biomedical models of trauma are too limited to attend the reality of these survivors [24]. These complex realities need a holistic model that understands the peculiar experience of women in a society in war, and the women's voices should be the guide for it.

In the absence of that holistic model until these days, some recommendations are appearing clearly in the literature:

- Disempowerment, gender inequality, stigmatization of sexual violence, self-identity, and body objectification are some of the central themes to work on the therapeutic space [34].
- There is change from labeling these women as victims to survivors, resilient
  women that are capable and should participate in their healing process. Women's
  resilience needs to be recognized and supported by mental health providers as a
  way to promote their adequate access to their rights of health care and justice [24].
- There is also a change in the focus on psychopathologic manifestation to the focus on resilience, protective factors, and methods of coping for the purpose of developing interventions and services [24].

- Health and mental health services for war survivors need to be culturally and gender sensitive.
- The complex needs require multiagency coordinated services.
- It is necessary to understand the social reality where the services are being displayed, like the political instability, the uncertainty about settlement, migration stressors involved, and the effect of collective trauma [34].
- It is important to include the protection and promotion of human rights, the search of social justice, and the empowerment (in the personal and the social level) in the work with female war survivors [24].
- Given the complex nature of this their experience and trauma, coordinated multiagency services are suggested [24].

In summary, mental health interventions with war survivors have to take into account the environment and ecological reality of the person and the community. They need to be complemented with individual and collective legal, social, and political actions destined to build or restore the empowerment of women and address all kind of social inequalities and discrimination that exist.

# 1.3 International Recommendations for the Prevention of Gender-Based Violence

Violence against women is perhaps the most shameful human rights violation. It knows no geographical or cultural limits, or economic position. As long as it continues, we can not say that we have actually made progress towards equality, development and peace.

Kofi Annan, Secretary-General of the United Nations

The Declaration on the Elimination of Violence Against Women, adopted by the General Assembly of the United Nations in 1993, shows the international understanding and recognition that violence against women is a violation of human rights and a form of discrimination against women.

The human rights norms that emerge from the Convention on the Elimination of all Forms of Discrimination against Women, subsequently ratified by the World Conference on Human Rights of the United Nations (UN) of 1993 and other international instruments, not only extend the validity of areas that were previously not considered as subjects of rights but also establish differences between formal equality and substantive equality. It is recognized as well that the so-called universal human rights—even when they guarantee in formal terms the legal equality of men and women—were defined from the life and experiences of men and do not take into account the needs and everyday experiences of women.

Therefore, and based on these experiences, the following is recommended:

- Expand democracy based on the effective participation of citizens and the full observance of human rights.
- Develop a national plan with state guarantees for the compliance of the principle of gender equity.

- Create government initiatives to improve the social status of women.
- Promote the production of up-to-date statistical information permitting to visualize the gaps and iniquities of gender at all levels.
- Penalize the media and professionals involved in cases that through promotional campaigns use women as objects or marginalize women's social, intellectual, racial, or economic status.

The Platform for Action document adopted at the Fourth World Conference on women, held in Beijing in 1995, defines violence against women as 1 of the 12 critical areas of concern that should be given particular emphasis by governments, the international community, and civil society.

At its 42nd session, in 1998, the Commission on the Social and Legal Status of Women of the United Nations proposed new measures and initiatives that should be applied by the member states and by the international community in order to put an end to violence against women, including the incorporation of a gender perspective in all policies and relevant programs. Among the conclusions agreed upon during the session, there are measures to provide support to the work of nongovernmental organizations; to combat all forms of trafficking in women and girls; to promote and protect the rights of migrant workers, in particular women and children and girls; and to promote the coordinated activities of research on violence against women.

In relation to violence against women in the domestic sphere, WHO multicountry study results on health of women and domestic violence against women underscore the need to take urgent measures on a wide variety of instances, ranging from local health authorities and community leaders to national governments and international agencies [35].

As the study graphically shows, violence against women is a widespread and deeply rooted practice that has serious consequences for the health and well-being of women. Its persistence is morally unacceptable; their costs are immeasurable both for individuals and for health systems and for the society in general. However, until relatively recently, no other relevant public health problems had been so widely neglected and misunderstood.

The wide differences in the prevalence and patterns of violence found from one country to another, and mostly from one context to another within the various countries examined, suggest that there is nothing "natural" or inevitable about this problem. Attitudes can and must change, the conditions of women can and must be improved, and men and women can and must convince themselves that violence cannot be accepted in human relations.

Reinforcing the idea of violence against women as a critical and preventable public health problem, and insisting on its serious impact on women and their children's health and mental health, the WHO reminds the health system of its crucial role on this process.

The proposal is a woman-centered health response that actively enhances women's safety, takes into account women's perspectives in the designation and delivery of services, responds to women's need in an humane and holistic way, provides information and support to allow informed choices and decision, and especially empowers women to participate in their own care [36].

The following recommendations have been extracted, primarily from the conclusions of the study, although they are also based on studies and lessons learned from experiences in numerous countries. Specifically, the recommendations corroborate the conclusions and recommendations presented in the WHO's World Report on Violence and Health [37]. Recommendations are grouped in the following categories:

- Strengthen the commitment and action at the national level.
- · Promote primary prevention responses.
- Involve the education sector.
- Strengthen the health sector response.
- Support women living with violence.
- · Sensitize those who are part of the criminal justice systems.
- Support research and collaboration.

In order to address and prevent violence against women, it is necessary that many sectors (educative, legal, health, economic, etc.) take action in many areas. However, it is important that states take the final responsibility for the security and well-being of its citizens. In this sense, the national governments, in collaboration with nongovernmental organizations and international organizations, must give priority to this issue.

Following international recommendations, each country is called upon to implement prevention programs of gender-based violence, to investigate such acts and prosecute and punish perpetrators, as well as ensure the woman victim her rights of care and assistance.

Various strategies and different models of legislation have been established in different countries, some include educational measures and preventive actions, while others establish specific courts or police offices for the matter. In the best cases, prevention, education, and integrated services for victims (from health to legal assistance in the same agency) conform a comprehensive approach to elimination of gender-based violence. Thus, not all approaches define violence against women in the same way nor act against all of its manifestations.

#### 1.4 Prevention and Response

Further assessment is required to determine the effectiveness of violence prevention measures [38]. Some of the interventions with more promising results are the promotion of education and work opportunities for women and girls, the improvement of their self-esteem and their negotiating skills, and the reduction of the inequalities of gender in communities.

Other efforts which proved to be effective are intervening with adolescents to reduce violence in their relationships, supporting programs for children who have

witnessed acts of violence between partners, massive public education campaigns, and adopting measures of collaboration with men and boys to challenge attitudes about gender inequities and the acceptability of violence.

The defense of victims, greater awareness among health workers about violence, and broader knowledge of the resources available for battered women (such as legal assistance and/or accommodation and care of children or other dependents) can mitigate the consequences of violence.

#### 1.5 The Feminization of Immigration

Addressing women's mental health around the world inevitably means to talk about immigrant women. Due to globalization of economy and its effect on labor market, migration has risen until the point that has almost doubled during the last 50 years. Traditionally, women migrated with men as dependents or as part of the family reunification processes, but recently women are migrating as autonomous breadwinners. Women constitute now the 48% of all international immigrants, approximately about 124 millions of those who migrate, some as highly skilled workers, but mostly running away from poverty and other human rights violations, [39].

Despite the fact that migration is a complex and multi-caused phenomena, there is an agreement on pointing as a principal cause for this change in the gender of migration in the country of origin ("push" factors) gender-based violence, gender inequality, feminization of poverty, unemployment, human rights violations, war, and discrimination [40]. Even when economic causes are the main reason to move, women often migrate to escape abusive and patriarchal traditions that limit opportunity and freedom [18]. On the other side of the frontiers, the most common "pull" factors (anticipated benefits on the country of destine) are the increasing demand for women in domestic positions and service and care-related jobs, the opportunity to receive higher wages, and family reunifications.

For many women, migration means a safer place, a new world of more equality, a relief from oppression and the discrimination that limits freedom, and an opportunity to develop their potential. For origin and receiving countries, the contribution of women migrants can transform quality of life. In origin countries, the economic contribution can palliate poverty, provide education and health care, and generally improve the quality of life of their families an even the whole communities. Beyond the economic factors, the social change thought new and renovated ideas, values, knowledge, or skills of women can contribute to promote human rights and gender equality. In receiving countries, they contribute their work and expertise, pay taxes, and support a style of life in developing countries that most take for granted allowing, for example, other women to delegate the traditionally assumed care of children and elderly for incorporating to labor market.

However, while migration is often an empowering experience, some migrants endure severe human right violations, abuse, and discrimination that affect their well-being. During the traveling, they are exposed to severe abuses including kidnapping, extortion, physical violence, and trafficking. In the country of destination,

immigrant face with language barriers, culture shock, isolation and loss of support systems, loss of socioeconomic status, unemployment or working in unsafe or unhealthy work conditions, poverty, social exclusion, prejudice and discrimination, lack of knowledge of existing services and barriers in accessing the health system, and feelings of vulnerability due to legal status [41]. In addition to all these stressors that can affect (in different proportion) all migrants, women have the unique experience of sexual and gender-based violence [42]. Due to the status as women and as foreigners (in addition to race, ethnicity, class, or religion), female migrants face disproportionate risk of abuse and violence at home, in the streets, or in the place of work [18].

The international organization worldwide recognized a feminization of migration in 2000 and compromised to promote equal access to project and services for the immigrant women, even to create specific programs to addressing their specific needs [43]. However, despite this acknowledge of challenges and risks of immigrant women, both international and national regulations fail to adequately address their problems. Trafficking and exploitation of domestic worker, two kinds of modern enslavement that affect mostly females, testify the lack of adequate opportunities for women to migrate safely and legally.

As we explain, even when migration can be a positive experience for millions, there are serious risks for female migrants that can compromise their physical and mental health and even their survival. For these women that are mothers, there is also another layer of complexity in their experience: they left their home and children behind to become a domestic worker caring for someone else's home and children instead of their own. Following, we will describe the transnational motherhood phenomenon, a paradox of the immigration that require from mental health professionals' especial attention and, even more than ever, a culturally and gender sensitive perspective.

#### 1.5.1 Transnational Motherhood

The feminization of migration changes the structure, organization, and hierarchy of the family and impacts the life cycle of its members. As women are increasingly migrating alone to find work, this has reconfigured the shape of the immigrant family and trans-nationalizing the meaning of motherhood [44]. Hondagneu-Sotelo and Avila were the first to employ the term "transnational mother" to describe these women that have migrated to another country in order to become the family breadwinner, leaving their country, culture, family, and children behind. In describing the paradox of having to leave their children, they relate the experience as being simultaneously "here and there": here as breadwinners and there as caregiver and nurturing mothers. Transnational mothers are "in the process of actively, if not voluntarily building alternatives constructions of motherhood" [45].

The interpretation of the departure of women and its impact on family structure is connected with the norms and values of their society. In societies with patriarchal values and marked roles of emotional caregivers, women may be questioned,

criticized, and denied of support as their migration is perceived as an abandonment instead of a sacrifice. In societies where nurturing and care is shared among extended family and community members, the sacrifice is better recognized and even celebrated. The ideas about the reunification are even more complex, grading from assuming it as the only valid option and not accepting alternative family arrangements, to blaming the mothers for bringing their children to a new country under the premise that they are breaking their roots and disrupting their lives.

Initial literature on transnational families found that the migration of mothers is a traumatic event with devastating consequences for these women and incurs substantial social and psychological negative changes among the family who remains behind [46].

Several studies find devastating psychological effects, such as anxiety, anger, somatic symptoms, depression, guilt, symptoms of posttraumatic stress disorder related to separation from children, and guilt, experienced by women with family fragmentation [44, 47, 48]. Miranda et al. found that the odds of depression for Latinas transnational mothers were 1.52 times greater than those of Latinas whose children were currently living with them [49]. Further, the reunification phase is not as easy and dreamlike as it could seem. It affects the entire functioning of each person of the family in their environment. When reunification occurs in Latino immigrants, families are faced with strong processes of adjustment that can include acculturation challenges, the addition of new family members, missing caretakers in homeland, authority conflicts, depression, anxiety, and behavioral problems. In Suarez-Orozco et al., mothers after reunification verbalized struggle with asserting authority and frustration because their financial and emotional sacrifices are not fully appreciated by their children [50].

On these studies, and especially in their diffusion, the focus tends to be on the devastations and rupture. Women are stigmatized for breaking the family in the first instance and then questioned later when they try to reunite with their children in a new country, because that may be traumatic for the children as well [51]. Also, this perception often assumes the migration as a personal and free election of the women, ignoring the socioeconomic pressures that may have caused it.

After these initial findings, several studies focused on deconstructing the negative conception, presenting alternative definitions of family structure and emphasizing that it is possible to maintain a positive relationship between mothers and children in the distance without severe emotional consequences, especially using new technologies.

These studies focused on the economic benefits, the resilience of the children left behind [52], plasticity of the families and readjustment of roles [53], or the opportunity to create relationship through technology [54].

It is very loable that these models defy the traditional model of nuclear family as the only valid. However, as Lagomarsino [51] notes, these perspectives may subestimate the complexity of motherhood. From these perspectives, the need of proximity and the physical connection that mothers and children claim could be seen only as a product of an excessively traditional or paternalistic culture, without recognizing the immigrant women the right to be (and the right to want to be) with their families and the emotional suffering due to the separation.

It is important to note that there are not the only frontiers but the social inequalities that create the ambiguous loss of separation and provoke emotional consequences for mothers and children. The current migration policies are creating "illegal persons," and there is an emotional consequence of that "illegality" [44]. Policies as the "zero tolerance" in the USA, where parents were separated from their children as they crossed the border, generated a disruption and trauma with irreparable emotional consequences for the families. An undocumented status creates a huge vulnerability to oppression, discrimination, violence, and inequality in the transnational mothers. Experiences of racism, discrimination, or exploitation affect them physically and mentally and often negatively form and transform their identities [55]. As many immigrants, these women have an internalized sense of powerlessness and not deservedness that makes them again an easy target for abuse and exploitation, perpetuating the circle.

Even when they approach to receive assistance, the limitation of services for undocumented persons aggravates the barriers that transnational mother already have, and these limitation are extended to children when they arrive here [48]. These challenges make more necessary than ever to incorporate in the clinical practice with these women a social justice frames that resist oppression by combating the effects of power differences and differential access to resources based on gender, race, class, and legal status [55].

Despite these challenges, transnational households continue to exist across space, and mothers and children only may connect across borders. These families need to develop their own norms to functioning, own strategies to communicate, and particular emotional connections based on their cultural context [56]. When these experiences are meaningful for the family and all members in both countries participate, it creates a sense of coherence and continuity that promotes the healthy development of its members [57]. For creating these coherent narratives, it is therapeutically necessary to process the multiple traumas related to immigration, separation, violence, discrimination, or poverty that transnational mothers have.

However, the clinical work will not be completed after any intrapsychic intervention. In the clinical work with transnational mothers, the whole family and the psychological and virtual relationships among members need to be addressed and empowered [55]. It is imperative to work with alternative social constructions of normal families. There are two stories in transnational mother-children relationships. Mothers will describe a story of trauma and sacrifice for their family and in consequence will expect gratitude, while children will tell a story of abandonment, even neglect, and will present anger. Validating both experiences and promoting the listening and empathy between family members will set the bases for a new relationship among members where narratives link. Assisting transnational mothers and their children to create a meaningful and coherent narrative in the distance that promotes the adaptation and grown as family will decrease the damage that migration in these conditions provokes.

#### 1.6 The Empowerment of Women

There are many definitions of the concept "empowerment" that we can find, depending on the discipline that uses it: psychology, political science, education, law, etc. Though this concept is not widely used in medicine, it is related to the field of social sciences.

The concept of empowerment has become widely recognized in the last 20 years; women's studies and the development of gender have placed the term at the center of their discussion. However, even within these fields, there is no consensus on its meaning. It is often used much like a substitute for integration, participation, identity or development, causing the term to lose its proper meaning.

Empowerment as a term was first introduced in the IV World Conference on Women in Beijing to refer to the increase of women's participation in the processes of decision-making and access to power [58]. Currently, however, this expression also considers another dimension: the awareness of the power that individually and collectively women possess and the recovery of women's own dignity as people.

Empowerment is "the process of gaining control over an ideology and the resources which determine power" [59]. These resources may be human, intellectual, financial, physical, and each person's own. Any process of empowerment has as objective change and transformation, being it an individual or a collective goal. For Young 1997, empowerment is "to assume control over their own lives to set their own agendas, to organize themselves to help each other and raise demands to the State requesting support and societal change" [60].

Empowerment, a strategy especially promoted by and for the women's movement in developing countries, has become the central axis of the gender perspective. This represents a strengthening of the social, economic, and political position of women and the strengthening of their health.

Gender relations are basically subordinate power relationships where all related to the female has an inferior value to the masculine. In an experiment in 1970 by Inge Broverment and his colleagues, Broverment took 79 clinicians and asked them to describe traits that represent healthy male, healthy female, and healthy genderneutral behavior. The clinicians described the healthy male and healthy female according to sex role stereotypes yet when describing healthy gender-neutral behavior it did not differ from the healthy male behavior [61]. The clinician's description of mental health as being characteristically male can be attributed to how society often views women and female characteristics as inferior.

Thus, in order to obtain true development for women, it is necessary to modify these relationships, being their acquisition of power the only way to redress the imbalance. Popularly, there is the belief that the empowerment of women represents the disempowerment of men. Yet, from a different point of view, Magdalena Leon argues that women's empowerment can also mean a psychological and emotional empowerment of men, through which they would advance by removing the limiting breastplate in which gender stereotypes have placed them [62].

Empowerment is a personal process, each woman has to empower herself, but society in all its dimensions should encourage a favorable arena and grant the possibilities for this process to unfold. As women empower themselves, they can actively participate in societal changes that will promote women's human rights and other possibilities of empowerment for further generations. Numerous authors emphasize the two spheres of empowerment: the individual and the collective sphere. Individual empowerment should be stronger in the cognitive processes and in the context of personal control. This individual empowerment process must be integrated into the collective empowerment in order to change oppressive and discriminatory sociopolitical structures at the hands of a dominant inadequate power.

The public health system must become an enabling agent of empowerment. In the context of health services, it is necessary to implement health promotion activities that allow women to learn strategies for the control and care of their own health. To achieve this, it is necessary to create an environment that favors women's confidence in themselves, in their autonomy, and in their self-esteem and promotes the ability of collective action for them to achieve personal change with a projection in public life. These health promotion activities must serve as a space for sharing personal and collective experiences and acquire personal and social skills to find alternatives for change on the unfavorable circumstances as a result of the gender roles women hold.

#### References

- Psicopatologia de la mujer. Eduardo Correa D y Enrique Jadresic M. Editores, Ediciones de la Sociedad de Neurologia, Psiquiatria y Neurocirugia de Cile. Imprenta Salesianos S.A. 2000.
- Word Health Organization (WHO). Women and health: today's evidence tomorrow's agenda (WHO report). Geneva: Word Health Organization. ISBN: 9789241563857; 2009.
- Isabel Martínez Benlloch. Universidad de Valencia "Actualización de conceptos en perspectiva de género y salud. Cursos de formación de formadores en Perspectiva de Género en Salud. 2005
- 4. Valls-Llobet C. Desigualdades de género en salud publica En AAVV: genero y Salud. Madrid: Instituto de la Mujer; 2000, p. 16–22.
- 5. Burin M. El Malestar de las mujeres. La tranquilidad recetada. Buenos Aires: Paidós; 1990.
- A/RES/48/104. Declaration on the Elimination of Violence. http://www.un.org/documents/ga/ res/48/a48r104.htm.
- 7. Bosch E, Ferrer V.A. La voz de las invisibles. Las víctimas de un mal amor que mata. Valencia: Ed. Cátedra. Colección Feminismos; 2002.
- 8. Council of Europe. Informe del Grupo de Especialistas Para Combatir la Violencia contra las Mujeres. Estrasburgo: Mimeografiado; 1997.
- Violence against women. In: World Health Organization. http://www.who.int/news-room/ fact-sheets/detail/violence-against-women.
- Herrman H, Saxena S, Moodie R. Promoting mental health. Geneva: World Health Organization; 2005.
- 11. Fukuda-Parr S. What does feminization of poverty mean? It isn't just lack of income. Femin Econom. 1999;5(2):99–103.. Business Source Complete
- The World's Women. Trends and statistics by United Nations Statistics Division. 2015. https:// unstats.un.org/unsd/gender/worldswomen.html

- 13. Blokhuis B. 14. Violation of women's rights: a cause and consequence of trafficking in women. Amsterdam: La Strada International; 2008.
- 14. Cacho L. Esclavas del poder. Mexico, DF: Grijalbo; 2010.
- 15. United Nations. Optional protocol to prevent, suppress and punish trafficking in persons, especially women and children, supplementing the United Nations Convention Against Transnational Organized Crime. 2000. http://www.unodc.org/documents/treaties/UNTOC/Publications/TOC%20Convention/TOCebook-e.pdf.
- 16. International Labour Organization. A global alliance against forced labour. Geneva: International Labour Organization; 2005.
- 17. Oram S, Stoöckl H, Busza J, Howard L, Zimmerman C. Prevalence and risk of violence and the physical, mental, and sexual health problems associated with human trafficking: systematic review. PLoS Med. 2012;9(5):1–13.. Academic Search Complete
- 18. Alcala M. The state of world population 2006: a passage of hope. United Nations Population Fund: 2006.
- Hossain M, Zimmerman C, Abas M. The relationship of trauma to mental disorders among trafficked and sexually exploited girls and women. Am J Public Health. 2010;100(12):2442– 9.. Social Sciences Full Text (H.W. Wilson)
- Yakushko O. Human trafficking: a review for mental health professionals. Int J Advance Counsell. 2009;31(3):158–67.. PsycINFO
- Zimmerman C, Hossain M, Yun K, Gajdadziev V, Guzun N, Watts C, et al. The health of trafficked women: a survey of women entering posttrafficking services in Europe. Am J Public Health. 2008;98(1):55–9.. CINAHL Complete
- 22. Tsutsumi A, Izutsu T, Poudyal A, Kato S, Marui E. Mental health of female survivors of human trafficking in Nepal. Soc Sci Med. 2008;66(8):1841–7.. CINAHL
- 23. Bjelajac Z, Spalevic Z, Banovic B. Psychophysical status of human trafficking victims. Healthmed. 2013;7(4):1341–6.. Academic Search Complete
- 24. Sherwood K, Liebling-Kalifani H. A grounded theory investigation into the experiences of African women refugees: effects on resilience and identity and implications for service provision. J Int Womens Stud. 2012;13(1):72–94.. LGBT Life with Full Text
- 25. Jones A. War is not over when it's over. New York: Metropolitan Books; 2010.
- 26. Un.org. Landmark resolution on women, peace and security (Security Council resolution 1325). http://www.un.org/womenwatch/osagi/wps.
- Trenholm J, Olsson P, Ahlberg B. Battles on women's bodies: war, rape and traumatization in eastern Democratic Republic of Congo. Global Public Health. 2011;6(2):139–52.. CINAHL Complete
- 28. Un.org. Women, peace and security. United Nations peacekeeping. http://www.un.org/en/peacekeeping/issues/women/wps.shtml.
- United Nations Security Council. Resolution 1888. 2009. http://www.un.org/womenwatch/daw/vaw/securitycouncil/S-RES-1888-(2009)-English.pdf
- United Nations Security Council. Resolution 1889. 2009. http://www.womenpeacesecurity. org/media/pdf-scr1889.pdf
- 31. United Nations Security Council. Resolution 2106. 2013. http://peacemaker.un.org/sites/peacemaker.un.org/files/SC\_ResolutionWomen\_SRES2106(2013)(english).pdf
- 32. United Nations Security Council. Resolution 2122. 2013. http://www.peacewomen.org/assets/file/sgres2122.pdf
- Hollifield M. Taking measure of war trauma. Lancet. 2005;365(9467):1283–4.. CINAHL Complete
- 34. Hagen K, Yohani S. The nature and psychosocial consequences of war rape for individuals and communities. Int J Psychol Stud. 2010;2(2):14–25.. Academic Search Complete
- 35. OMS. Estudio a fondo sobre todas las formas de violencia contra la mujer, p. 119–129. http://www.observatorio.violencia.org/upload\_images/File/DOC1164822961\_N0641977.pdf.
- 36. Strengthening health systems to respond to women subjected to intimate partner violence or sexual violence: In: World Health Organization. 2017. http://www.who.int/reproductivehealth/ publications/violence/vaw-health-systems-manual/en/.

- 37. Informe mundial sobre la violencia y la salud: resumen. Washington, DC: Organización Panamericana de la Salud,Oficina Regional para las Américas de la Organización Mundial de la Salud, 2002.
- 38. World Health Organization (WHO). Violence against women. Descriptive note November. 2009
- 39. 2017 International Migration—United Nations. http://www.un.org/en/development/desa/population/migration/publications/migrationreport/docs/MigrationReport2017\_Highlights.pdf.
- 40. Gouws A. The feminisation of migration. Africa Insight. 2010;40(1):169–80.. Social Sciences Full Text (H.W. Wilson)
- 41. Thurston W, Vissandjée B. An ecological model for understanding culture as a determinant of women's health. Crit Pub Health. 2005;15(3):229–42.. CINAHL
- 42. Dimmitt Gnam A. Mexico's missed opportunities to protect irregular women transmigrants: applying a gender lens to migration law reform. Pacific Rim Law Policy J. 2013;22(3):713–49.. Academic Search Complete
- Martin S. World migration report 2000. Geneva: International Organization for Migration; 2000.
- 44. Horton S. A mother's heart is weighed down with stones: a phenomenological approach to the experience of transnational motherhood. Culture Med Psychiatry. 2009;33(1):21–40.. CINAHL Complete
- 45. Hondagneu-Sotelo P, Avila E. "I'm here, but I'm there": the meanings of Latina transnational motherhood. Gender Soc. 1997;11:548–71.. Social Sciences Full Text (H.W. Wilson)
- 46. Lahaie C, Hayes J, Piper T, Heymann J. Work and family divided across borders: the impact of parental migration on Mexican children in transnational families. Commun Work Fam. 2009;12(3):299–312.. Business Source Complete
- 47. Sternberg R, Barry C. Transnational mothers crossing the border and bringing their health care needs. J Nurs Scholarship. 2011;43(1):64–71.. CINAHL Complete
- 48. McGuire S, Martin K. Fractured migrant families: paradoxes of hope and devastation. Fam Commun Health. 2007;30(3):178–88.. MEDLINE with Full Text
- 49. Miranda J, Siddique J, Der-Martirosian C, Belin T. Depression among Latina immigrant mothers separated from their children. Psychiat Serv. 2005;56(6):717–20.. PsycINFO
- Suarez-Orozco C, Bang H, Kim H. I felt like my heart was staying behind: psychological implications of family separations & reunifications for immigrant youth. J Adolesc Res. 2011;26(2):222–57.. ERIC
- 51. Lagomarsino F. Familias en movimiento: más allá de los estereotipos de la paternidad y maternidad transnacional. Papeles del CEIC. 2014; https://doi.org/10.1387/pceic.13002.
- 52. Hoang LA, Lam T, Yeoh BS, Graham E. Transnational migration, changing care arrangements and left-behind children's responses in South-east Asia. Children's Geograph. 2015;13(3):263–77. https://doi.org/10.1080/14733285.2015.972653.
- 53. Mosquera GH. Lejos de tus pupilas: familias transnacionales, cuidados y desigualdad social en Ecuador. Quito: Flacso; 2013.
- 54. Peng Y, Wong OMH. Diversified transnational mothering via telecommunication. Gend Soc. 2013;27:491–513.
- 55. Falicov C. Working with transnational immigrants: expanding meanings of family, community, and culture. Fam Proc. 2007;46(2):157–71.. CINAHL Complete
- Mazzucato V, Schans D. Transnational families and the well-being of children: conceptual and methodological challenges. J Marriage Fam. 2011;73(4):704–12.. Social Sciences Full Text (H.W. Wilson)
- 57. Walsh F. Normal family processes: growing diversity and complexity. 3rd ed. New York: Guildford Press; 2003.
- 58. http://www.un.org/womenwatch/daw/beijing/pdf/Beijing%20full%20report%20S.pdf \ Report of the Fourth World Conference on women \t\_blank.
- 59. Batliwala S. El significado del empoderamiento de las mujeres: nuevos conceptos desde la acción. En Magdalena León (comp) Poder y empoderamiento de las mujeres. Bogotá: Tercer Mundo SA; 1997.

- 60. Young K. El potencial transformador en las necesidades prácticas: empoderamiento colectivo y el proceso de planificación. En Magdalena León (comp) Poder y empoderamiento de las mujeres. Bogotá: Tercer Mundo SA; 1997.
- 61. Broverman IK, Broverman DM, Clarkson FE, Rosenkrantz PS, Vogel SR. Sex-role stereotypes and clinical judgments of mental health. J Consult Clin Psychol. 1970;34:1–7.
- 62. León Magdalena. El empoderamiento de las mujeres: encuentros del primer y tercer mundos en estudios de género. En La ventana, Revista de estudios de género. 2001;13:94–116. Universidad de Guadalajara.

What Is Human Resilience and Why Does It Matter?

Paula Silva-Villanueva

#### **Abstract**

The concept of human resilience is gaining popularity. It has also become a key priority in health, wellbeing and sustainable development policies. But, what is resilience? Given the heightened interest, we need to be explicit about what it is. Resilience has been the centre of psychology and psychiatry. The concept was primarily conceived at the individual level, as a capacity that enables some people to thrive and grow in spite of adversity. However, a narrow focus on inner capacity ignores the outer social world and structures in which lives are embedded. As research on resilience has expanded beyond the mental health field, a more nuanced understanding of the term has emerged. It emphasizes that the cultural context within which individuals live coupled with structural factors such us unequal power dynamics and social inequalities—are key determinants in supporting or undermining individuals and communities' resilience. Ignoring these broader dimensions has four implications: (i) it pathologizes natural responses to adversity and trauma; (ii) it creates a bias towards implementing Western-centric policies that do not take into account the complexity of resilience processes across cultures; (iii) it highlights that individuals are held responsible for how they deal with adversity, instead of transforming the system, which increases risks and social inequalities; and (iv) it fosters implementation of gender-blind policies and practices that further exacerbate existing gender inequalities. Resilience is not a neutral concept, but is influenced by conflicting views and values. Researchers, practitioners and policymakers require a holistic understanding moving from definitions to being aware of the political and practical implications of different perspectives.

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#### 2.1 Introduction

The concept of resilience has recently become strikingly popular. It seems we have entered the 'age of resilience'. A quick Google search on the term gives over 109,000,000 entries ranging from quick tips for people on how to be resilient to studies, blogs and articles discussing the resilience of nations, organizations, industries, cities, economies and so forth.

Building individuals' and communities' resilience has also emerged as a key priority in the international agenda in relation to its potential impact on health, wellbeing and quality of life. For example, resilience is a key priority of the WHO European policy framework for health and wellbeing (Health 2020) [1], the UNICEF has adopted resilience as a major framing theme in its health and humanitarian work with children [2] and the United Nations has identified resilience, mental health and wellbeing as key priorities in the international Sustainable Development Goals [3]. Within this context, building people's, communities' and wider systems' resilience is increasingly being presented as a viable mechanism for reducing health challenges and social inequalities and improving quality of life.

The concept of resilience, primarily conceived as the capacity of human beings to thrive and grow in spite of adversity, is not new for researchers. In fact, scientists started to study and define the term back in the 1950s [4]. Within the field of mental health, resilience research marked a drastic shift moving the discipline from 'deficit models' (focus on the treatment of the negative effects of trauma and adversity) to 'asset models' where the capabilities and resourcefulness to respond to problems or people's ability to search for solutions became the centre of attention [5–7]. Yet, 60 years on, despite its widespread and enthusiastic use, there is still no consensus about its operational definition.

The rise of resilience is partly explained by the 2008 post-economic downturn alongside international conflicts, terrorist attacks, raising levels of inequality and poverty, migratory crises and climate change impacts [8]. The 2014–2016 Ebola [9] outbreak also generated interest about the resilience of mental health systems to respond to future emergencies.

In an era of increasing political and economic challenges to state solutions to social problems, a discourse promoting the strength and capacities of individuals, families and wider civil society is clearly attractive [10]. But, what exactly is resilience? What makes an individual resilient? Are some people more resilient than others? If so, why? The reader is warned that there is no simple and straightforward answer. Yet, clear understanding matters because how resilience is defined reflects how it might be assessed and therefore is intricately tied up with the identification of health and socioeconomic development interventions that attempt to improve wellbeing.

This paper attempts to shed some light into these questions. Its purpose is not to identify definitive answers. As the paper will illustrate, this would be a grave mistake. Rather, it aims to help enhance critical thinking about the term and its policy and practice implications. To do so, the paper takes a life course approach to the

construct and evolution of the term, within the field of mental health. It first reviews its origins and then moves into contemporary research findings. The understanding of factors that promote resilience for individuals has been primarily shaped by scholarly work in the fields of traumatology and developmental psychology, where the primary focus is to understand what makes people cope with stress and adversity. However, recent research highlights that individuals' resilience is a process shaped by cultural context and the wider ecological systems within which individuals live. A subject focus opens the way to personalization of resilience and the attribution of success or failure to the individual and not to the context. More importantly, ignoring cultural context and structural factors can lead to pathologizing individuals' reactions to adversity. To truly understand the factors that influence human resilience, a closer look at the ecological systems within which people live is necessary. This is of particular importance from a gender perspective as context, culture and values are critical to understanding how women often find their ability to face crises affected by power relations and the social roles allocated to them.

To provide a broader understanding of the factors that shape human resilience, the paper also draws insights from those who work in the humanitarian field supporting communities' resilience to disasters, conflict, poverty, migration and poverty where understanding and addressing socioecological dynamics is of utmost importance. Given the volume of material produced and decades of (inter)disciplinary research, this paper can only sketch some dimensions of the concept. Furthermore, this paper does not review the wealth of literature around the wide range of medical perspectives and clinical interventions; throughout the paper, the reader is referred to other review articles for more information. Thus, it narrows its focus to definitions, and it is structured around four key insights that have direct implications for policy and practice. These fall into four categories: (1) the complexity of the human resilience process, (2) the inherent normative stance in definitions and measurements, (3) the structural factors that enhance or diminish resilience trajectories and (4) the gender blindness in the current understanding. By addressing these four areas, the paper concludes that although the term resilience offers the potential for a paradigm shift that focuses on individuals' strengths and assets, truly embracing the resilience paradigm calls for a normative stance about diversity, rights and equity.

The aspects raised in this paper should not be left out of the debate on, and the search for, credible policies and actions. Definitions are powerful as they identify problems and solutions. Researchers, practitioners and policymakers face choices, which require being aware of norms. Decontextualizing resilience from the real world can potentially further serve to repress or exclude difference and, in turn, have a negative effect on individual resilience possibilities. Further, taking an apolitical approach to human development and resilience runs the risk of exacerbating social and health inequalities and, ultimately, diminishing people's resilience potential and wellbeing.

# 2.2 The Many Definitions of Resilience and Related Terminology

The term 'resilience' is derived from the Latin verb *resiliere* meaning to spring back, bounce or 'rebound'. Resilience was first used in physical sciences to refer to objects and materials that resume their original shape upon being bent or stretch. In human beings, it is usually associated with individuals who bounce back following significant stress and adversity [11].

What seems to be a relatively simple metaphor has led to a large number of research studies in diverse disciplines including ecology [12], economics [13], psychology, psychiatry [14, 15] and, more recently, international development studies [16] to describe the capacity of a system (a community, a country, a rainforest, an economy, etc.) to respond to challenges and threats, survive and continue to prosper. As a result, the term is being operationalized in a wide range of policies and practices [10]. Yet, resilience is rarely defined the same way twice by researchers within and across disciplines. Given the scale of social and environmental change, currently there are multiple efforts across these communities of research to find convergence in thinking and practice [17].

Until quite recently, scholarly work on resilience was the sole providence of traumatology and developmental psychology [4, 18]. Early resilience research with adults focused on identifying what led some individuals to avoid traumatic stress [19]. In developmental psychology, research primarily focused on studying the factors differentiating children who function 'well' from those who are 'dysfunctional' in the face of adversity [20]. The fields reveal an abundance of definitions, and in early conceptualizations, they ranged between the extremes of the absence of a psychopathology (i.e. the individual's capacity for adapting successfully and to function competently despite experiencing chronic stress or adversity or following exposure to prolonged or severe trauma) on the one hand and 'heroism' on the other (i.e. under adversity, an individual can bend and lose some of his or her power and capability yet subsequently recover and return to the prior level of adaptation as stress is reduced and compromised) [19]. In contemporary research, definitions have become more sophisticated, and Hart et al. point to at least 17 subtly distinct definitions of resilience used by academic authors [21].

In 2010, the American Psychological Association defined resilience as 'the *process* of adapting well in the face of adversity, trauma, tragedy, threats or even significant sources of threat' [22]. More recently, influenced by socioecological studies, definitions have become even more dynamic such as 'the capacity, processes or outcomes of successful adaptation in the context of significant threats to function and development' [20] or 'the process of harnessing biological, psychosocial, structural, and cultural resources to sustain wellbeing' [23].

In spite of the fact that the term has been studied for decades and definitions have evolved as scientific knowledge has increased, there is no consensus on a definition and operationalization of the term. While differing in terminology, there are two pivotal concepts subsumed within the term which are also highly contested [20]: first is the experience of significant risk, stress and *adversity*,

which typically encompasses negative life circumstances that are known to be associated with adjustment difficulties, and second is the achievement of 'positive' outcomes or adaptation, which generally includes the processes of continuing to function in spite of stress, usually referred to as 'bouncing back'. Put simply, outcomes refer to how 'well' the individual is doing in his or her life. For example, some define outcomes as competence in meeting expectations for a person of a given age [24].

The wide range of the definitions have raised critics about the term including the lack of precision and consistency of measurement frameworks [20]. Yet, as discussed in later sections, the need for clarity is of utmost importance. This is because, beyond the challenge of semantics and differences in usage of the word, how resilience is defined and understood has critical implications for policy and practice.

To shed some light on the ambiguities in the meanings as well as potential implications, the paper next provides a brief overview of the origins of resilience research. A more comprehensive review is provided by Graber and colleagues' [25] synthesis of the state of knowledge in psychological resilience. In addition, Luthar [4] provides a thorough review of the empirical evidence that emerged after five decades of resilience research. However brief, it is important to illustrate the origins of the concept because it continues to influence contemporary research and practice.

Next, the paper provides important findings and insights from the most recent research, paying attention to two main areas of contention: First, is resilience an individual characteristic, a developmental process, an outcome or all of the above? Second, where does one draw the line between resilient and non-resilient responses?

### 2.2.1 Origins of Resilience Research

Why do some children or adults face adverse situations and traumatic events, manage to get ahead and develop positively, while everything predicts a negative outcome? This question was the starting point for resilience research in the field of mental health.

Before investigations on resilience were initiated, studies conducted on individuals at high risk for developing psychopathology frequently portrayed the developmental course as deterministic, inevitably resulting in maladaptive and pathological outcomes. Efforts were directed towards understanding pathology and deficits rather than on how problems were transcendent [24]. The scientific study of resilience emerged in the 1960s as researchers discovered that not all high-risk children manifested consequences that extant theories of psychopathology predicted. Comprehending the reasons why individuals at risk did not develop psychopathology became viewed as important for informing theories on the development of maladaptation and pathology [26]. This approach reflected a notable departure from the symptom-based medical models of the time [4].

Oriented around the individual, specifically children, psychological studies primarily focused on identifying personal qualities often associated with hardship of the

so-called resilient children. Studies aimed to differentiate children who had adapted positively to socio-economic disadvantage, abuse or neglect and catastrophic life events from children showing comparatively poorer outcomes [20, 25].

The pioneering study by Gramzwey [27] explored the development of children with schizophrenic mothers, noting the positive adaptation demonstrated by many of these children despite their increased risk to poor outcomes. Similarly, Werner and Smith's longitudinal study followed a group of at-risk children born in 1955 in Hawaii, from adverse backgrounds facing the challenges of extreme poverty, parental mental ill health, parental conflict and parental low educational attainment. The study evidenced that for the clear majority of individuals involved in the study, this early deprivation had no discernible impact on their lives, with the majority becoming successful and 'well-balanced individuals' [28, 29].

Often, these children were thought to be 'exceptional', unique in capacity to persist or sustain health and psychological wellbeing in the face of continuing adversity. Following Werner's and Gramzay groundbreaking studies, research on resilience expanded to include multiple adverse conditions such as socio-economic disadvantage, parental mental illness, maltreatment, urban poverty and community violence, chronic illness and catastrophic life events. The thrust of this research was a systematic search for promotive factors, that is, personal traits that modify the effects of risk in a positive direction and decrease the susceptibility of the organism to adverse effects of exposure to stress [30].

As work in the area evolved, resilience was portrayed as a constellation of *promotive factors*, including things like easy-going temperament, perseverance, self-reliance, high intellectual ability, socio-economic advantage and optimism. Importantly, these studies were designed to discriminate between resilient and non-resilient children, and therefore the knowledge base is limited to a static list of variables that does not explore the processes and pathways through which individuals managed to grow in spite of adversity. Put simply, this suggests that some individuals simply do not 'have what it takes' to overcome adversity, while others seem to have some level of 'immunity' to the impact of adverse life events [31]. The application of this definition has important consequences on how the non-resilient individuals are conceived and therefore become the target of health interventions [32].

However, as increasing evidence emerged, researchers acknowledged that resilience was often derived from factors *external* to the child. In the decades that followed, several investigators attempted to uncover broader protective factors leading to positive adaptation among high-risk individuals. Three sets of protective and promotive factors from the micro- to the meso-level came to be commonly cited as implicated in the development of resilience: the aforementioned attributes of the children themselves, aspects of their families (positive parenting, trusting relationships, respect and caring attitudes, financial resources, academic influences, peer support and positive social support) and characteristics of their *wider social environments* (i.e. bonds to adults outside the family, attendance at effective schools) [33]. This marked a reconceptualization of resilience from a solely individual phenomenon to one that recognized the influence of the environment. Masten [33] has referred to these correlates as 'the shortlist' of protective and promotive factors and

argued that they may reflect the fundamental adaptive systems supporting human development. In contemporary research, in addition to the psychosocial factors, potential biological contributors (e.g. neural plasticity, neuroendocrine and immune functioning and genetics) were proposed by Cicchetti [26].

Up to this point in resilience research, three theoretical assumptions underpin the concept: (i) resilience by definition is a nonnormative concept type of functioning that is exhibited only in the face of adversity; therefore, (ii) because adversity is presumed to have a negative impact on most people, individuals have low odds of success in high-risk contexts, and escaping psychopathology and maladjustment is inevitable; and in turn (iii) 'functioning' in the context of extreme adversity is a capacity that lies within the individual and is uncommon and limited to 'invulnerable' individuals. In short, escaping psychopathology qualifies as resilience.

As more studies were conducted and evidence emerged, these assumptions did not receive support in the decades that followed. Yet, as the remainder of the paper highlights, these pervasive assumptions continue to be present. One area of enduring debate in resilience theory over the years was whether resilience should be viewed as a trait or a process. Recognizing the ongoing theoretical debate among scientists and researchers in the following sections, the paper narrows its focus down to four key insights which have direct implication for policy and practice. This fall into four categories: (1) resilience as a complex and dynamic 'natural' human process, (2) the inherent normative stand in definitions and measurements, (3) the structural factors that enhance or diminish resilience trajectories and (4) gender blindness in the current conceptualizations of resilience.

### 2.3 Resilience as a Complex and Dynamic 'Natural' Human Process

The studies that followed from the first wave of research marked a shift in emphasis: rather than searching for protective and promotive factors, researchers increasingly strive to discover the *mechanisms* underlying resilience in order to understand the why and how of resilience by studying the interplay between the individual-family-community interactions [25]. With time, the understanding of resilience has become more sophisticated but also more complex.

Resilience is not the exception but a common human process that develops throughout the lifespan [6, 33, 34]. After two decades of research into children growing up in disadvantage, the exception of invincible children became the rule with Masten's (2001) study and framing of resilience as a processes of 'ordinary magic', suggesting that positive adaptation under stressful conditions is not necessarily exceptional but rather the norm even in the context of severe adversity [33, 35].

This assertion coincides with resilience research on traumatic stress and post-traumatic adaptation which emphasizes that most trauma-exposed individuals *do not* develop clinically long-term significant distress and functional impairment, suggesting that chronic, severe maladjustments following a trauma are the exception rather than the rule [35]. Although trauma-focused studies have been limited, as

these mostly focused almost exclusively on the adverse sequel of trauma, scholars studying the development of post-traumatic stress disorder in adults highlight that the absence of social support and the presence of contextual life stress were two of the top three risk factors having larger effects than traditional risk variables such as child abuse history, low intelligence, low socio-economic status and lack of education [19].

This focus has led researchers to conclude that resilience is far more than a simple psychological characteristic or biological phenomenon and that it is not simply the absence of struggle or psychopathology, but instead resilience is conceived as a dynamic developmental process encompassing the attainment of positive adaptation within the context of significant adversity [20]. In short, resilience is not something an individual 'has'—it is a multiple determined developmental process that unfolds as the personal, the social and the environmental act in constellation and in interaction with each other. As a result, resilience is not fixed or immutable; it changes throughout the lifespan. Several lines of investigation have recently illustrated that resilience levels are not only positively related to age but also to the challenges and adjustments individuals go through throughout their lifespan [36, 37]. Put differently, traumas always strike differently because they occur at different times and affect different psychic constructs [38]. Thus, resilience is reflected not only in protective factors but also in the *coping* mechanisms that enable individuals to lead to successful adaptation or developmental outcomes under stressful circumstances. Strategies commonly cited to facilitate the resilience processes include reappraising a situation more positively, regulating emotions, utilizing social support, accessing tangible resources and planning [39]. More recently, scholars have argued that beyond recovery, resilience is ultimately about leading a positive life by making meaning and finding a sense of purpose. That is, ultimately, resilience processes should lead to learning and growth as a consequence of the adversity [18, 40].

The understanding of resilience as common basic processes of human adaptation under extremely stressful circumstances has challenged the adequacy of psychopathology-oriented approaches that utilize deficit-based models to explain how maladaptation develops and that emphasize traditional psychotherapy treatment to remediate dysfunction (). In particular, Masten's work marked a shift in emphasis to encompass prevention rather than simply treating maladjustment or pathologies after they have already crystallized. As a result, there has been a proliferation of resilience programmes, for example, in schools (in the West) but also in humanitarian settings with the objective of enhancing children's as well as adults' resilience to withstand all manner of adversities [41]. In the field of mental health, resilience-enhancing interventions mostly focus on strengthening protective factors of children. On the other hand, in the field of humanitarian and development, interventions largely focus on providing assets and resources to those who suffer [41]. Although this distinction will be addressed in later section of the paper, it is important to note here that, although well intentioned, these programmes also carry an implicit assumption that has a direct impact in policy and practice: only if people are helped, if resilience is 'created', people will develop their resilience.

Resilience does not equal 'invulnerability' or the absence or struggle of psychopathology [5, 42]. Instead, it is about understanding the positive assets, resources and outcomes that emerge despite adversity. For example, studies examining the resilience levels of children with histories of maltreatment found that almost two thirds were academically resilient, yet only 21% manifested resilience in the domain of social competence [11]. In a similar line, other studies have shown that among adolescents who experienced significant adversities, those who overtly reflect successful adaptation often struggle with covert psychological difficulties, such as problems of depression and post-traumatic stress disorder [11, 43]. Yet, the point is that they still manage to function in many areas of their lives. It is in fact unrealistic to expect that anyone, no matter how resilient, will consistently perform at a uniformly high or low level across all areas of their life [44].

This understanding challenges the prevailing conceptualization of resilience as existing along a continuum with vulnerability, which implies a resistance to psychopathology. Instead, research points out that these experiences are transient and do not interfere with their ability to continue to function in other areas of their lives, including the capacity for positive affect [35, 45]. A narrow focus on negative psychological outcomes ignores other domains of life and not only underestimates individuals' resilience but distorts and pathologizes human responses to adversity and trauma. In fact, it is because we are vulnerable that we use all the resources and strategies possible to overcome the adversities that affect us.

Such findings carry a critical message for researchers and practitioners: the need to specify resilience to what (emotional resilience, psychological resilience, economic resilience, educational resilience, etc.) and when as an individual may respond in a resilient manner to one type of shock, stress or trauma but not to another; or the same event may have a different effect depending on when it occurs [38]. In conclusion, resilience is not an unchangeable characteristic of an individual—it varies through time and circumstances—nor it does imply finality. In fact, the process is inherently dynamic. It is always a matter of degree. Resilience should therefore not be understood and assessed by one behaviour or outcome nor at one point in time.

However, Bonanno and Cyrulnik argue that, despite emerging evidence on the 'natural' process of resilience, the prevalent view among health researchers and professionals is that of a one-dimensional response to traumatic events with few possibilities of positive outcomes for children and adults exposed to traumatic events. Therefore, coping and recovery from adversity is a process that in most cases should be facilitated by clinical interventions. Both authors argue that such understanding is prevalent because much of the psychology's knowledge (in the west) about how children and adults cope with loss or trauma has come from individuals who sought treatment or exhibited great distress or loss and because 'trauma theorists have often viewed this type of resilience as either rare or pathological' [35].

Resilience unfolds as a result of a complex process of individual's interaction with his or her environment. The individual who copes and recovers from adversity does so not in isolation but rather in the context of available resources, other human beings and families, within specific cultures and religions, organizations and communities

and societies [46]. Individuals are actively interacting with an (un)supportive environment. Each of these contexts may be capable of supporting the individual. Ignoring the role that context plays continues to view resilience (even if a process) as an individual's capacity. However, as the following section will illustrate, a large body of research has found that when the environment also provides ample opportunities to master challenges and stresses, it can have an 'inoculating' or 'steeling' effect, which can help promote or erode resilience [14]. From this perspective resilience is defined as the 'process in which assets and resources within the individual, their life and environment facilitate this capacity for adaptation and "bouncing back" in the face of adversity' [5]. In spite of such recognition, the tendency is to model change and measurement frameworks on the basis of individual development.

Research and practice in mental health discipline (and other disciplines) is still dominated by a paradigm narrowly focused on risk, where individual's responses to trauma and resilience tend to be narrowly measured by a person-focused attributes. This tendency can be observed, for example, by examining several 'resilience scales' published over the past 15 years. Most frameworks predominantly focus on assessing assets and resources of the individual with a strong emphasis on the personal agency and capacity [47]. According to Panter-Brick and Eggerman, this is because the central mission is to validate mental health models and to identify a 'recipe' for effective policies and interventions. Further, a number of scholars [21, 30, 34] remind us that any scientific representation of resilience as a personal quality or process can inadvertently pave the way for perceptions that individuals who do not have this attribute are somehow a failure [5, 20] or even 'blame the victim' for not being able to handle the situation [7]. This might be taken to suggest that victims of, for example, violence bear the responsibility for survival and that failure to 'bounce back' is due to their poor personality traits or lack of agency [48].

Recent research on international politics cautions against the emergent neoliberal discourses around resilience, health and wellbeing, which argue that ultimately the responsibility to survive and thrive lies in the individual, denying the structural constraints on individual's lives. For example, in sustainable development strategies, disasters are increasingly portrayed not as threats to humanity, but as opportunities for communities to rebuild better, implement social change and become responsible for their own survival. This requires acceptance that the world is inherently uncertain and disastrous. The objective is to learn to bear suffering, rather than to change the world such that suffering does not occur [8]. It is from within the shifting of responsibility for health and wellbeing outcomes from society and institutions onto individuals that cultural theorists and social critics consistently warn against an emphasis on promoting resilience [21].

Measurement and assessment frameworks are the place where research informs policy and practice, and they also represent normative positions. Those designing policies and interventions should not forget the bias inherent in what it is assumed to be 'resilient' or 'healthy' development. Before undertaking any assessment, practitioners should ask themselves: resilience *for whom and for what purposes*. The following section will illustrate that processes such as cultural, social and structural forces at play should not be overlooked.

# 2.4 Context Matters: Challenging Normative Stands in Definitions

Either seen as a trait, a process and/or an outcome, resilience cannot be defined or assessed outside of its context and culture. Until quite recently, context was acknowledged only insofar as it produced adversity; hence, the fundamental dynamic of the (non-)resilient individual up against social adversity ignores the possibility that resilience might also itself be a social phenomenon [49].

In addition to the controversies surrounding the concept and wide-ranging definitions of resilience, there is a debate about what constitutes (i) stress/risk/adversity, (ii) what 'counts' as resilience and more specifically (iii) who gets to define successful resilience [50]. A major limitation and criticism of the concept of resilience is the criteria for positive coping strategies and outcomes because they are tied to and reflect normative judgments grounded in the dominant Western culture [50]. For example, Werner and Smith reported that interpersonal and affective distancing and low expectations for parental involvement in childhood were related to later resilience in adulthood, not poor adjustment [24]. Such findings emphasize the importance of avoiding generalizations and conclusions about what constitutes protective factors and good coping (in this case a supportive family environment).

The role of context and culture in resilience was neglected but is now burgeoning [42]. As anthropologists and social scientists embarked upon conducting qualitative studies on resilience across cultures and situations, the complexity of defining 'healthy recovery' and 'positive' adaptation and the normative stands in definitions have become more evident. With closer attention to the processes that might account for resilience, qualitative studies have enabled researchers to enquire how people make meaning of their challenges without limiting them to meanings that researchers decide in advance as relevant [51]. Put differently, quantitative studies focused on validation, whereas qualitative studies on discovery. This area of inquiry has led investigators to challenge key assumptions underpinning understandings of risk, trauma, coping and positive adaptation [52].

Risk, adversity and trauma are defined and experienced differently by cultural groups [53]. Sociological studies of resilience put greater attention to the importance of human agency and to the capacity of individuals to make sense of one's experiences, assign meaning to them and consequently make choices and take actions within a particular social and historical context. Experiences of suffering and resilience are embedded in subjective and social experience [54]. Events are considered stressful only when they are perceived as such, and it is the subjective experience of individuals (and cultures) that define the impact of an event or experience [38, 54–56]. For example, in a study of Afghan boys and girls affected by war, Panter-Brick showed how for children everyday suffering in the family and community impacted them just as much as exposure to war or violence [57]. A study focusing on North American indigenous communities highlighted that, in spite of acute economic circumstances, racism and discrimination were the two main risks that effect resilience outcomes [58]. Studies of youth affected by war and conflict in

different countries highlight how political ideology is critical in how they process conflict experiences, with some finding meaning and purpose in their conflict [59].

Historically, resilience was associated with exposure to extreme stressors or crises. As research has expanded across context and situations, there is now a substantial body of research documenting that outcomes generally worsen and resilience becomes less likely, as risk and stressful factors pile up and persist [42]. That is, someone who experiences an acute adversity during poverty or maltreatment is more likely to struggle. For example, studies of war-affected youth found that the number rather than the type of childhood adversities predicted the odds of adultonset mental health disorders [59]. As a result, psychologists began to view resilience as effective day-to-day functioning in the context of everyday life stressors, such as work-related stress, deadlines, family arguments and so on. As Lenette et al. conclude in their study of refugee women, 'the everyday is not simply the vessel in which lives are lived, rather it is the milieu in which the social processes of resilience are enacted daily' [49]. This is in line with other studies that suggest that resilience has to be understood within a micro context of ordinary life where the processes are more than overcoming past experiences and involve shifting, changing, building, learning and moving on [55]. As the final section of the paper will illustrate, this is of particular importance.

Cultural and contextual factors are key in understanding and explaining how people cope with adversity. In the Afghan example, the study also showed that the cultural Afghan values (religious faith, family unit and harmony, the obligation of service to family and community, perseverance, good morals and social respectability) provided the bedrock of hope and resilience. Yet, in line with similar studies, the authors highlight that despite the protective effect of cultural values, young people often felt trapped as it caused people to suffer great psychological distress when they found themselves unable to conform to the standard cultural values. The authors conclude 'culture can be an anchor of resilience but also an anvil of pain' [57]. Therefore, resilience, health and wellbeing are the result from the "ongoing iterative and interactive navigations and negotiations between selves, communities and environments; and the factors that contribute or undermine resilience are not absolute" [53].

However, most resilience literature and measurement frameworks come from the Western-trained psychological and social service community, and studies tend to ignore the bias inherent in what are assumed to be health indicators [52]. Further, until quite recently most studies have been conducted using White American population [60]. Similarly, international policy frameworks tend to be developed by Western-based organizations and to ignore the bias inherent in what is assumed to be wellbeing, resilience and 'good development'. Such judgments tacitly support the assumption that 'normal' functioning is, by nature, healthy and adaptive [52]. But, for example, is someone who overcomes the obstacles of poverty, discrimination and lack of employment opportunity by becoming a wealthy drug dealer a 'resilient' person? Drug dealing is regarded as a negative outcome and a crime by those who have been socialized, but some studies show how drug dealing can also be a life-saver for youngsters who have been socially humiliated, and it can actually

be a resilient response in Bogota, as it enables them to earn an income for their family and discover their identify and dignity [52]. Is a person exercising disruptive behaviour and violence, in a context characterized by violence and marginalization, resilient? Munford and Sanders [61] demonstrate the ways in which socially marginalized young women in New Zealand use socially disruptive and challenging behaviour to create their own spaces to share and build supportive relationships and develop their own sense of identity.

Sociologists emphasize, for example, that both survival and resistance strategies, even in the form of isolation, disconnection and violence responses, might be required to survive the adversities in many contexts. In fact, some contexts may be too much for anybody to deal with, and survival is the only option. But, even if the strategies that follow may not necessarily lead to normative outcomes, they should be considered a critical pathway to resilience, and the actions of the individual should not be undermined, even less pathologized. Resistance to dominant social forces or to the established order, for example, in the case of highly oppressed marginalized groups can also be a critical form of resilience as it sustains agency and wellbeing [32, 61]. Such emphasis on subjective meaning and social context should take the field of mental health beyond a narrow focus on trauma exposure.

Victor Frankl, a Viennese psychiatrist who survived confinement in a Nazi concentration camp, and Boris Cyrulnik, a French psychiatrist and thought leader in the field, who lost his parents in a concentration camp but who managed to escape, advocate this human agency view of resilience. From their perspective, individuals who demonstrate resilience in the face of multiple forms of psychological and physiological trauma can construct meaning and purpose of human existence, of their personal sufferings and of their own lives.

A reliance on normative constructions of resilience obscures the complexity of the processes through which individuals cope, manage and thrive and underestimates the power of the individual. In practice, once again, this implies that those individuals nonconforming to mainstream definitions may be labelled as non-resilient. Contemporary research calls into question the Western tendency to exaggerate the prevalence of post-traumatic stress disorder (PTSD) and to pathologize normative stress [59]. (See Almendon and Glandon [62]; Bonanno [35] and Bonanno and Mancini [63] for a debate on PTSD and resilience.)

Without a sociological and contextual understanding, researchers and practitioners may neither hear nor see other ways that individuals may be coping as 'healthy'. Moreover, what at first glance appears to be a 'dysfunctional symptom' becomes, upon closer examination, a rational and reasonable coping strategy given the extremity of the stressors to which individuals are subjected [64]. Most qualitative studies capturing the lives of migrants [56], refugees [49, 55], victims of violence and war [54, 59] and sexual abuse and rape [65], disaster survivors [66], chronically ill patients [67] and many more around the world highlight high levels of resilience, as they manage to recover and move on with their lives. It could be argued that the person who makes the most out of whatever is available to him or her should be considered resilient even if his or her behaviour does not look like resilience or ticks the box against a predetermined set of characteristics identified by a researcher.

There are many pathways to resilience if we are prepared to listen and learn from people's realities and experiences of suffering.

Adversity and suffering are common elements of human experience. There seem to be some universals in individuals' resilience [53]. In fact, most of the resilience studies identify similar central factors to resilience which most of the time are not related to preconceived factors such as educational level, IQ or income. Rather, they relate to a strong sense of community and cultural values, making sense of their experiences, a strong sense of spirituality and hope despite overall feelings of loss. It is therefore not surprising that a review of resilience studies over 50 years concludes that the key to resilience is about relationships and human connection [34].

Based on this premise, the Cultural Resilience Scale has been developed to examine how cultural factors relate to the development of coping and resilience. Studies to date highlight heterogeneity in resilience trajectories, and therefore attempting to fit all experiences under 'one-model-fits-all' perspectives is not only of limited value but could hide inherent normative bias [53].

The powerful role societal norms play and the authority of experts to control and regulate what constitutes normal, healthy or good outcomes [52] means normative understandings of resilience can potentially further serve to repress or exclude difference and, in turn, have a negative effect on individual resilience possibilities. As our societies become increasingly multicultural, it is essential to discover the processes contributing to resilience from diverse cultural, ethnic and racial backgrounds. Further, we need to be aware of our own biases, cultural beliefs and sensitivities. Unveiling the normativity of resilience policy and practice means continually asking *resilience for whom* and *for what purpose* [68]. Researchers and practitioners working in the field of resilience enhancement need to refrain from categorical judgments about what is and is not resilience under adversity and stress.

What the evidence across context and cultures tells us is clear: resilience is a natural process – in spite of hurt and damage, at any given moment, individuals use their relational, spiritual, emotional, ecological and physical resources to keep moving forwards [35, 38]. While the author agrees and supports this view, careful consideration needs to be given to the implicit assumption that resilience already resides in humans, that all of us have an equal capacity to overcome crises and one is free to choose to be resilient or not. As the following sections will illustrate, that is in fact not often the case.

# 2.5 Going Beyond the Individual: The Structural Factors that Support, Enhance or Diminish Resilience Trajectories

As the study of resilience has started to pay more attention to the cultural and social context, a more *systems*-oriented perspective has started to emerge. Influenced by social ecology approaches, contemporary research in the field of mental health has come to take a more interactional and ecological approach that places both the individual and the adversity within a dynamic multilevel context [21]. Responses to

trauma and stressors are therefore determined by multiple dynamic, interacting individual-level system (i.e. genetic, epigenetic, developmental, neurobiological) which are embedded in larger social systems (i.e. family, cultural, economic and political systems) [43]. From this perspective individuals' resilience is not just the ability to 'bounce back' from adversity but also 'the capacity of the his or her environment to nurture it and provide access to health and resources in culturally relevant ways' [52]. Further, resilience is the result of a mutually constructive relationship between individuals and systems which are also ever-changing in response to unexpected external disturbances and internal dynamics [31].

Locating resilience and vulnerability within these broader contexts removes the focus from individual characteristics and the associated blame of those who 'do not have it'. From this perspective, resilience is a systems-based construct that is applicable to several fields of study and across levels of inquiry. In practice, this implies that (a) research, policy and practice require a broad-based multidisciplinary approach and (b) when designing policies and interventions, rather than just tinkering with individual-level capacities, it is critical to understand and engage with society-level barriers that block communities' and individuals' agency and opportunities to achieve a better future.

This notion has generated an increased interest in health and wellbeing research, practice and policy. The Health 2020 agenda and the sustainable development goals acknowledge that action for strengthening resilience needs to be based on a holistic view of the context in which individuals, communities and systems cope with problems and attempt to protect and promote health [69]. Here, for example, supportive environments are seen to be critical in affording people protection from factors that can threaten their health and enable them to expand their capabilities and self-reliance [6].

This approach has led to a more comprehensive conception of wellbeing that recognizes the importance of collective as well as individual strengths [70]. As a result, within the field of psychology, there is now a tendency to pay greater attention to multi-scalar dynamics, including the influence of genes, culture, social networks and interactions with the media, among other factors [43, 44, 71]. However, much of the focus remains on the individual or family level, which could be partially explained by the fact that much work in developmental psychology has been done in Western countries, where individualism is strongly emphasized [57]. The main problem with this person-focused approach is that the political dimensions, cultural context and power relations that underlie systems and structures are ignored [21].

Given the global scale and complexity of social and environmental change, resilience has become a construct of wide relevance in a range of research areas, specifically in the humanitarian and international development field, such as conflict, disaster preparedness, climate change and livelihoods and economic strengthening [10]. Community- and system-level inquiries are particularly being embraced by those who work in conflict in humanitarian settings where children and families are affected by poverty, war, weather extreme events and social inequalities. The resilience-enhancing interventions aim to support people not only to survive and

recover from stressors and crises but also to boost wellbeing and realize *rights*. The primary focus is on the resilience of the community, and not on the individual, and it is thus the community that is or is not resilient within a context.

A community can be affected by disasters, war or pandemics but also by socioeconomic inequalities that limit the access to the resources and opportunities to
grow. International programmes working with these communities focus not only on
building skills and capacities but also (if not mostly) on providing the assets and
resources to enable communities to improve their resilience and pursue their wellbeing and influence a rights-based approach to policy and practice [72]. Yet, quite
often resilience often tends to be narrowly measured around qualities that are easy
to quantify such as income or nutritional status [73]. Furthermore, supporting the
mental health of the most vulnerable has long been neglected in these programmes.
Certainty in these settings, interdisciplinary and intersectoral approaches that
address both socio-economic and mental health dimensions of resilience are of
utmost importance. Mental health is, for the first time, recognized as a critical factor
for resilience and wellbeing, and it is now explicitly included in the international
sustainable goals [3].

Beyond the individual, a socioecological perspective introduces into the understanding of resilience the role of structural factors, unequal power dynamics and social inequalities that support or undermine communities' resilience. This does not mean that communities' and individuals' agency should not be considered. A socioecological perspective of resilience still requires an exploration of the ways in which individuals negotiate their lives in the context of adversity and the ways they access resources or assets through their (interdependent) social relations with significant others in families and communities. However, the focus is not solely on these individuals [48]. From this perspective, researchers and practitioners working in this field are challenging the definition and appropriateness of resilience in terms of survival, coping and bouncing back. From an individual perspective, psychological studies assume the presence of an equilibrium points towards which individuals are expected to 'rebound' upon facing shocks or perturbations [74]. But when living in a context of social inequalities and discrimination, this implies maintaining the status quo and adapting to established systems or forms of power. Individuals are encouraged to look within rather than to challenge unequal and oppressive structures. This is what some authors have called 'the dark side of resilience' [75]—there is a risk of trying to 'fix' individuals rather than changing the system that constrains them. Increasingly, humanitarian and development programmes are calling for a transformative agenda that tackles the root causes of vulnerability and poverty [76, 77].

A resilience approach to human development provides an opportunity to focus on possibilities and growth rather than on problems and deficits, but, detached from its political and socio-economic context, there is a risk that socially created differential risks, and vulnerability is naturalized and ignored. Conversely, a focus on vulnerability without attention to resilience capacities may address the weaknesses of a particular individual or community without promoting their capacity to respond and move forwards. Framing resilience within the operations of power relations in

institutional dynamics opens up the discussion to issues about equity and justice [21, 68]. With health, resilience and wellbeing now recognized as key agendas, questions about how to improve individuals' resilience (most of the times targeting personal skills) should be replaced by questions about how to transform the social structures and systems that produce inequality, increase vulnerability and ultimately weaken people's resilience [10, 21, 55, 68].

# 2.6 Gender Blindness: When Resilience Is About Rights and Equity

If resilience is to be understood within the context, culture and socio-economic and political environment within which individuals live, then variables such as class, gender, and ethnicity cannot be ignored or considered independent variables. This may seem an obvious statement, but the reason why gender issues have not been raised so far in this paper is because gender is hardly discussed in resilience-specific studies (with few exceptions discussed below) [78]. This is despite the consistent finding that gender plays a critical role in determining resilience levels [64, 65, 79, 80].

Men and women differ in almost all aspects of health and wellbeing. They are socialized differently, engage in different roles in life and have differential access to social and material resources. These differences are not only based on sex or biological factors, but are shaped by social norms [81]. Further, there is a complex interplay of gender with a range of social differences (class, race, education, age, position in the family hierarchy and marital status) that can act to nurture or undermine resilience. Gender differences in employment, housework, child care and economic hardship affect men and women but tend to impact women more negatively [78]. This has a direct influence on the potential for resilience, and, therefore, a gender perspective is central. This final section limits the discussion to gender differences between men and women but acknowledges the debates around gender as a fluid construct that also includes lesbian, gay, transgendered and bisexual persons.

On the international agenda, there have been global efforts to increase awareness of the importance of gender in health and wellbeing outcomes as well as for the achievement of sustainable development goals [3, 81]. In this context, there is wide agreement that integrating a gender perspective in resilience-building interventions means recognizing that women, men, girls and boys have differentiated vulnerabilities, i.e. that they are exposed differently to risks and are affected differently by them. It also means recognizing that the distinct capacities of individuals to face and cope with risks are shaped—and often limited—by a system of power and privileges [3]. It is essential to understand resilience in the context of inequality and human rights.

Despite such recognition most literature related to mental health and resilience is limited to the study of sex differences. Studies tend to describe gender as both a risk and protective factor, depending on the adversity and on a person's age

[39, 82]. The ways in which gender proves to be a protective or a risk factor are highly contextual to (1) culture and (2) the specific risk under consideration. Being female can be a risk factor in the face of abuse, health risks, low socio-economic status and psychological health. Boys and men are more susceptible to the negative impacts of risks such as violence, substance abuse and low socio-economic status [25].

Not surprisingly, sex differences have also been found in responses to stressful events. For example, studies have provided evidence that women experience more stress than do men day to day, as women tend to be more emotionally involved than men in social networks [83, 84] and women are more vulnerable to developing stress disorders after serious stressors or trauma [85]. Several lines of evidence also show differences in coping strategies between men and women [86]. When faced with adversity, men tend to rely on their independence, whereas women utilize their support systems. Further, studies suggest that while men demonstrate more actionoriented and problem-solving strategies, women more often employ emotion-based coping strategies. Such strategies have been historically considered passive and a maladaptive means of managing a stressful situation, as those employing them are more likely to internalize what is happening to them instead of taking action in confronting the problem [83]. It is important to note here that these studies were not resilience specific and therefore (i) beyond sex differences, most studies did not explain the how and why of the difference and (ii) the processes that women followed to overcome adversity were not addressed. But, for a long time, critics have recognized the influence of social forces such as sexism and access to power as variables in the coping process, rather than solely focusing on the individual [87].

Specific studies have been undertaken in relation to women's resilience against domestic violence and sexual abuse [48, 65, 88]. Research on women and girls who succeed in negotiating their lives and overcoming the negative impacts of violence has often used 'resilience' as a concept to explain such coping [48]. These studies highlight how feelings of powerlessness and a society's denial and secrecy surrounding domestic and sexual abuse coupled with a societal tendency of blaming the victim further exacerbate a choice to use emotion-focused coping [80]. Thus, it is because of the environment and societal norms that women are pressured to cope in a 'maladaptive' manner. A comparative study of two Pakistani women following experiences of rape in police custody revealed that one woman relied on denial and finding solace in religious symbolism, while the other woman spoke out and advocated for gender equity. Resilience can thus take many forms among women from similar backgrounds, but both speak to the depths of gender politics [49].

Further, contrary to the common belief, emotion-coping strategies have been critical to the resilience of women to violence and sexual abuse [81]. Studies point to the fact that at the time of the abuse, strategies such as focusing on work, using substances and self-silence clearly help the victim to function during that period in their lives. While at times the tendency might be to pathologize the ways in which women coped and to question their behaviour, when abstracted from context and gender, experiences are reduced to individuals and their sex deficiencies, rather than obstacles posed by social norms. Once again, 'unhealthy', 'dysfunctional' and as a

result 'non-resilient' labels place the blame on women. Furthermore, Duma [89] refers to women's journey to recovery from sexual violence as 'the turning point' to describe their pathway from being a 'victim' to a 'survivor' and, often, back to being a 'victim'. Their route to recovery depends on the extent to which they can access adequate and appropriate support and resources or the extent to which the environment is able to nurture their resilience processes.

Few lines of evidence highlight differences in resilience levels between women and men. Although evidence is contradictory, research mostly tends to conclude that women are or are less likely to be resilient than men [82, 84, 90]. Studies do not offer however insights into the reason why gender is associated with reduced likelihood of resilience. A recent review of three well-recognized resilience measurement tools<sup>1</sup> concludes that women typically score lower on measures of resilience compared to men because existing frameworks do not reflect the ways that gender roles and inequalities shape women's responses to adversity [18]. The authors argue that this is because social support and social connectedness, both associated as critical supportive factors for women's resilience, health and wellbeing, are not included in measurement frameworks. The tendency to measure resilience as an individual trait fails to capture, understand and measure not only women's resilience resources but also the complex protective mechanisms that individuals use and their temporal dimension—all of them critical factors of resilience [47]. On the other hand, studies focusing on resilience levels at an old age, which, beyond personal attributes, also include women's supportive factors, actually detect greater resilience of women [39, 91]. Data matters and measurement frameworks are powerful as they can not only further perpetuate societal beliefs about men's superior ability to manage adversity but also misinform policy design and interventions [78].

Although in the literature on resilience differences in relation to gender have only started to emerge in the mental health literature [92], specific studies on the intersection of gender and resilience have been undertaken for over a decade the field of humanitarian aid and conflict and disaster management. These studies provide key insights into how the broader political and economic environments directly impact (most of the time diminishing) women's resilience trajectories.

It is widely known that women and girls are disproportionally affected by disasters, climate change and conflict. Women have been estimated to be seven times more likely than men to die in disasters and to receive less external support [93]. Social customs and women's role as carers limit their mobility and access to public spaces and resources, meaning they do not directly receive relief items and are restricted from taking part in the decision-making that affects their lives. All of these aspects may explain why women are more likely to die in a disaster [48].

Women who manage to survive are often seen as 'victim-survivors' caring for and provisioning children and dependent on relatives traumatized by disasters [94]. But, vulnerability and resilience to disasters are not a natural attribute of women nor men, but rooted in gender inequality [81]. In the aftermath, women may be left

<sup>&</sup>lt;sup>1</sup>This includes (i) the Connor-Davidson resilience scale, (ii) the briefing resilience scale and (iii) the resilience scale for adults.

responsible for rebuilding lives when husbands and sons migrate to earn remittance income, and there is strong evidence that women and girls will be more food-insecure when food is scarce and that violence against women escalates in the aftermath of disasters, a factor noted in a number of disasters across the world [95]. Following a disaster, young girls are particularly vulnerable to being withdrawn from education to assist with the workload, to forced child marriages and to trafficking [48].

These findings also challenge the often-romantic notion of the nature of family and community in supporting people to respond to stress. A focus on family and community resilience ignores the reality of difference and inequality within the household, in particular in relation to money, access to resources and power to decide and lead [81]. It is now widely recognized that understanding gender roles and relations in households is critical for supporting individuals' resilience since the focus is on the ways the household can protect, generate and diversify the necessary recourses required in time of crises or extreme hardship [81].

Women face restrictions in their lives both before and after a disaster (or any other type of shock) strikes—which are matters of rights, justice and empowerment [94]. Placing rights and gender at the centre pays specific attention to the inequitable distribution of resources and power and repressive cultural norms and rules that hinder people's resilience potential [96]. Findings from this field emphasize the need towards a more radical, transformational, gendered (and its intersecting power axes of social difference) and power-sensitive dimension of resilience [66]. A failure to do so risks further reinforcing gender inequalities due to the reality of social difference and inequities within power structures.

A gendered view of resilience entails not only recognizing the reality of difference and inequality but also women's strength and capacities. International frameworks present women—as a unitary group—as passive victims of war, pandemics, disasters, chronic poverty, etc. instead of active agents in humanitarian action. Similarly, as discussed above, in the field of mental health, women are portrayed as more vulnerable and with less effective coping strategies. Thus, although resilience is recognized as a paradigm shift from deficits to strengths, there continues to be an overfocus on risk and vulnerabilities. Resilience tends to be presented and treated as an adjunct rather than being utilized to its full potential as a concept.

Women in many parts of the world continue to survive decades of war, domestic violence, sexual abuse, discrimination, inequality and tremendous obstacles because they are, in fact, resilient. Even in the poorest countries, women can expect to outlive men. A recent report highlights that even across the globe, women exhibit greater survival resilience to adverse socio-economic conditions [97]. This phenomenon, often called the 'gender paradox', has many partial explanations, such as differences in biological risks, risks connected to social roles and illness behaviour as well as in lifestyle [39]. However, this paradox remains largely unexplored. It is possible that women's greater resilience could explain their capacity to survive adversity. It could be hypothesized that if resilience is a process of bouncing back, adapting and bouncing forwards, then maybe women around the world have mastered their resilience capacity. Unfortunately, though, they are not only resilient to the most adverse circumstances; they are also resilient to an unjust system.

But resilience should not equal just coping. Women are more than victims, and they have the right to be more than survivors. Gender-blind policies not only fail to recognize women's resilience and resourcefulness but also entrap them in a vicious circle of survival. Policymakers and practitioners need to challenge taken-forgranted values and halt practices that systematically and perennially diminish girls' and women's resilience. This can only happen if research and interventions consider men, women, girls and boys as gendered individuals that are part of governing institutions and systems. Further, addressing gender dynamics is not just necessary to understand and support the resilience of women and girls but also to safeguard their immediate and future wellbeing.

More recently, the construct of resilience has broadened to include health and wellbeing across the lifespan, and research has established positive associations between resilience and health [18, 67]. The Health 2020 agenda also points out that building resilience is a key factor in protecting and promoting health and wellbeing at individual and community levels. From this perspective, health policies and interventions should not only ensure equitable and universal access to a good range of curative and preventive services; it should also search for better social and environmental conditions that would allow people more control over their lives and, thus, would improve their health and resilience [69]. But, abstracted from context, resilience takes on the appearance of an apolitical, independent variable from higher-level structural, political and economic factors. This detachment from the real world fundamentally ignores the root causes of vulnerability and the power relations and gender dynamics that enable or constrain women's and men's resilience pathways.

Finally, integrating gender perspectives into resilience assessment and measurement is of utmost importance not only for a more accurate appraisal of women's and men's resilience but also to generate vital information for the creation of more inclusive and representative theories and designs of resilience-promoting interventions.

#### 2.7 Conclusion

Resilience, a word originally used to describe a human phenomenon, has now become a normative concept in most policies and frameworks related to health, wellbeing and socio-economic development. In an area characterized by large-scale social and environmental change, human and systems resilience is seen now as a vital asset. So, what is human resilience then? Despite its widespread use, the literature surrounding human resilience is large, messy and at some points too abstract and includes many ongoing theoretical debates. Five important lessons arise from this review in relation to policy and practice.

First, we have learnt that resilience is more than a personality trait; it is a common human developmental process in the face of adversity. The evidence base challenges long-standing deficit and dysfunction models that assume that individuals in high-risk context, without clinical intervention, have low chances of escaping psychopathology and maladjustment. After six decades of resilience research,

the message is clear: focusing solely on the negative aspects and impact of adversity overlooks and undermines the power of the individual. This human phenomenon is a complex process where a host of biological, psychological, cultural, socio-economic and political factors interact with one another to determine how individuals respond to stressful experiences.

Despite a wide range of definitions and conceptualizations, this paper concludes that human resilience could be defined in an astonishingly simple way: it is about starting on a new development after a shock or stressful circumstances. Despite hurt and damage, at any given moment, individuals use their emotional, ecological and physical resources to keep moving forwards and to find meaning and purpose of their human existence. This is a complex process of change where the individual's agency interacts and is influenced by wider structural and social processes. Unfortunately, individuals, and especially women around the world, also need to call upon their resilience potential to thrive in context of marginalization and gender inequality.

The second lesson we have learnt is that there are many pathways to resilience and wellbeing. People's experience of traumatic events is different. How people are affected, cope and recover varies greatly according to their cultural and social context. Narrowing the study, policy and practice to a shortlist of competence and skills and a seat of healthy 'functioning outcomes' helps to design interventions and to simplify extreme complexity. However, there is a risk that simplicity is mistaken for the messy reality of life and all its forms. Decontextualizing resilience from the real world can potentially further serve to repress or exclude difference and, in turn, have a negative effect on individuals' resilience possibilities. The resilience agenda runs the risk of imposing prescribed Western-centric norms and frameworks and pathologizing those nonconforming individuals as non-resilient. Both issues point directly to matters of power.

Moving beyond the individual, a third lesson emerges from the field of humanitarian action and international cooperation. A focus on the individual detracts attention from the conditions that call for resilience in the first place and naturalizes and ignores socially created risks, vulnerabilities and inequalities. Engaging with normative dimensions of the term requires a critical discussion of power and justice. Just as practitioners should not look for pathologies or victimhood after every trauma or adversity, we should not romanticize the notion of resilience nor ignore the impact of poverty, social inequality, violence and all forms of adversities. A socioecological understanding of the human experience is of utmost importance to uncover and work against the root causes of vulnerability, and efforts to support resilience must be accompanied by efforts aimed at structural change. Further, bouncing back from adversity is not the same thing as bouncing forwards. When people live in a context of social inequality and discrimination, bouncing back implies maintaining the status quo and adapting to established systems and forms of power. We need to stop romanticizing resilience and people's strengths and start asking questions about the political and socio-economic structures and systems that produce risk and vulnerability in the first place.

The final and cross-cutting lesson emerging from this review is that a genderblind conceptualization of resilience leads to misinformed policies and practices. Risk, vulnerabilities and capacities have a gender dimension due to the distinct and unequal gendered roles and responsibilities that fall to women and men. Ignoring this in research policy and practice entraps women in a vicious circle of blame, victimhood and survival and further reinforces gender inequalities.

To conclude, as with all normative concepts, resilience has become a political term and space; it is defined, invoked and applied in settings shaped by multiple, cross-cutting power relations and social and material circumstances. The resilience agenda is at a crossroads. A resilience approach to human development provides an opportunity to focus on possibilities and growth rather than on problems and deficits and to focus on empowerment rather than on victimization. But, truly embracing the resilience paradigm requires shifting the focus from the individual to the system and the people that empower it. Given the policy imperative and importance of human resilience, researchers, practitioners and policymakers across the field of work face a choice between focus and definitions, which require being aware of normative stands. National and international objectives of ensuring health and wellbeing for all cannot be achieved without a rights-based approach to resilience.

#### References

- WHO. Health 2020. A European policy framework and strategy for the 21st century. Copenhagen: Regional Offices for World Health Organization Europe; 2013.. http://www.euro.who.int/\_data/assets/pdf\_file/0011/199532/Health2020-Long.pdf
- UNICEF. UNICEF strategy for health (2016–2030). 2018. https://www.unicef.org/health/files/ UNICEF\_Health\_Strategy\_Final.pdf.
- United Nations. Transforming our world: the 2030 agenda for sustainable development. Resolution adopted by the General Assembly on 25 September 2015. http://www.un.org/ga/search/view\_doc.asp?symbol=A/RES/70/1&Lang=E.
- Luthar S. Resilience in development: a synthesis of research across five decades. In: Cicchetti D, Cohen DJ, editors. Developmental psychopathology: risk, disorder, and adaptation. 2nd ed. New York: Wiley; 2006. p. 739–95.
- 5. Windle G. What is resilience? A review and concept analysis. Rev Clin Gerontol. 2011;21:152–69.
- Richardson JC, Chew-Graham CA. Resilience and well-being. In: Chew-Graham CA, Ray M, editors. Mental health and older people. Cham: Springer; 2016. p. 9–17.
- Bartley M, editor. Capability and resilience: beating the odds. London: University College London; 2006.
- Mckeown A, Glenn J. The rise of resilience after the financial crises: a case of neoliberalism rebooted? Rev Int Stud. 2017;44(2):193–214.
- Barasa E, Mbau R, Gilson L. What is resilience and how can it be nurtured? A systematic review
  of empirical literature on organizational resilience. Health Policy Manag. 2018;7(6):491–503.
- Ager A. Resilience and child well-being—public policy implications. J Child Psychol Psychiatry. 2013;54(4):488–500.
- Southwick SM, Bonanno GA, Masten AS, Panter-Brick C, Yehuda R. Resilience definitions, theory, and challenges: interdisciplinary perspectives. Eur J Psychotraumatol. 2014;5 https://doi.org/10.3402/ejpt.v5.25338.

12. Holling CS. Resilience and stability of ecological systems. Ann Rev Ecol Systemat. 1973;4:1–23.

- 13. Briguglio L, Gordon C, Farrugia N, Vella S. Research Paper No. 2008/055. Economic vulnerability and resilience: concepts and measurements. 2008. https://www.wider.unu.edu/publication/economic-vulnerability-and-resilience.
- Rutter M. Resilience: concepts, findings and clinical implications. In: Rutter's child and adolescent psychiatry. 6th ed. Hoboken, NJ: John & Sons, Ltd; 2015. p. 341–51.
- 15. Rutter M. Resilience concepts and findings: implications for family therapy. J Fam Ther. 1999;21:119–44.
- Barret CB, Constas MA. Toward a theory of resilience for international development applications. Proc Natl Acad Sci U S A. 2014;111(40):14625–30.
- 17. Masten A. Resilience in developing systems: progress and promise as the fourth wave rises. Dev Psychopathol. 2007;19(3):921–30.
- 18. Zautra AJ, Hall JS, Murray KE. Resilience: a new definition of health for people and communities. In: Handbook of adult resilience. New York: Guilford; 2010. p. 3–30.. https://www.researchgate.net/publication/232581337\_Resilience\_A\_new\_definition\_of\_health\_for\_people\_and\_communities.
- Layne CM, Warren J, Watson P, Shalev A. Risk, vulnerability, resistance, and resilience: towards an integrative model of posttraumatic adaptation. In: PTSD: science & practice—a comprehensive handbook. New York: Guilford; 2007.
- 20. Luthar S, Cicchetti D, Becker B. The construct of resilience: a critical evaluation and guidelines for future work. Child Dev. 2000;71(3):543–62.
- 21. Hart A, Gagnon E, Eryigit-Madzwamuse S, Cameron J, Aranda K, Rathbonw A, et al. Uniting resilience research and practice with and inequalities approach. SAGE Open. 2016;6:1–13.
- 22. American Psychological Association. The road to resilience. Washington, DC: American Psychological Association; 2010.. http://www.apa.org/helpcenter/road-resilience.aspx
- 23. Panter-Brick C, Leckman JF. Editorial commentary: resilience in child development—interconnected pathways to well-being. J Child Psychol Psychiatry. 2013;54(4):333–6.
- 24. Wright MO, Masten A, Narayan AJ. Resilience processes in development: four waves of research on positive adaptation in the context of adversity. In: Goldstein S, Brooks RB, editors. Handbook of resilience in children. New York: Springer+Business Media; 2013.
- Graber R, Pichon F, Carabine E. Psychological resilience. London: Overseas Development Institute; 2015. https://www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/9872.pdf
- Cicchetti D. Resilience under conditions of extreme stress: a multilevel perspective. World Psychiatry. 2010;9(3):145–54.
- 27. Garmezy N. The study of competence in children at risk for severe psychopathology. In: Anthony EJ, Koupernik C, editors. The child in his family: vol 3. Children at psychiatric risk. New York: Wiley; 1974. p. 43–84.
- 28. Werner EE, Smith RS. Vulnerable but invincible: a study of resilient children and youth. New York: McGrawHill; 1982.
- 29. Werner EE, Smith RS. Overcoming the odds: high risk children from birth to adulthood. New York: Cornell University Press; 1992.
- 30. Luthar S, Cicchetti D. The construct of resilience: implications for interventions and social policies. Dev Psychopathol. 2000;12(24):857–85.
- 31. Folke C, Carpenter SR, Walker B, Scheffer M, Chapin T, Rockstrom J. Resilience thinking: integrating resilience, adaptability and transformability. Ecol Soc. 2010;15(4):20.
- 32. Aranda K, Zeeman L, Scholes J, Morales SA. The resilient subject: exploring subjectivity, identity and the body in narrative of resilience. Health. 2012;16:548–63.
- 33. Masten AS. Ordinary magic: resilience processes in development. Am Psychol. 2001;56(3):227–38.
- 34. Luthar SS. Resilience in development: a synthesis of research across five decades. In: Developmental psychopathology. New York: Wiley; 2006. p. 739–95.

- 35. Bonanno G. Loss, trauma, and human resilience: have we underestimated the human capacity to thrive after extremely aversive events? Am Psychol. 2004;59:20–8.. https://www.researchgate.net/publication/8909498\_Loss\_Trauma\_and\_Human\_Resilience\_Have\_We\_Underestimated\_the\_Human\_Capacity\_to\_Thrive\_After\_Extremely\_Aversive\_Events
- 36. González-Arratia NI, Medina JL. Resiliencia: diferencias por edad en hombres y mujeres mexicanos. Acta de Investigación Psicológica. 2013;3:941–56.
- 37. Consedine NS, Magai C. Sex and age cohort differences in patterns of socioemotional functioning in older adults and their links to physical resilience. Age Int. 2005;30(3):209–44.
- 38. Cyrulnik B. Resilience. New York: Penguin Books; 2009.
- 39. Lakomy M, Kafková-Petrová M. Resilience as a factor of longevity and gender differences in its effects. Czech Sociol Rev. 2017;53(3):369–92.
- 40. Zautra AJ, Arewasikporn A, Davis MC. Resilience: promoting well-being through recovery, sustainability and growth. Hum Dev. 2010;7(3):221–38.
- 41. ODI. Resilience and humanitarian action. London: Overseas Development Institute; 2011.. https://www.odi.org/projects/2359-resilience-and-humanitarian-action
- 42. Wright MO, Masten A. Pathways to resilience in context. In: Theron L, Liebenberg L, Ungar M, editors. Youth resilience and culture commonalities and complexities. New York: Springer; 2015. p. 3–22.
- 43. Southwick S, Sippel L, Krystal M, Charney D, Mayes L, Pietrzak R. Why are some individuals more resilient than others: the role of social support. World Psychiatry. 2016;15(1):77–9.
- 44. Masten AS. Resilience in children threatened by extreme adversity: frameworks for research, practice, and translational synergy. Dev Psychopathol. 2011;23:493–506.
- 45. Rutten BPF, Hammels C, Geschwind N, Menne-Lothmann C, Pishva E, Schruers K, et al. Resilience in mental health: linking psychological and neurobiological perspectives. Acta Psychiatr Scand. 2013;128(1):3–20.
- 46. Sherrieb K, Norries HF, Falea S. Measuring capacities for community. Soc Indic Res. 2010;99(2):227–47.
- 47. Windle G, Bennett KM, Noyes J. A methodological review of resilience measurement scales. Health Qual Life Outcomes. 2011;9:8.
- 48. Moletsane R, Theron L. Transforming social ecologies to enable resilience among girls and young women in the context of sexual violence. Agenda. 2017;31(2):3–9.
- 49. Lenette C, Brough M, Cox L. Everyday resilience: narratives of single refugee women with children. Qual Soc Work. 2013;12(5):637–53.
- Schoon I. Risk and resilience: adaptation in changing times. New York: Cambridge University Press; 2006.
- 51. Massey S, Cameron A, Ouellete S, Fine M. Qualitative approaches to the study of thriving: what can be learned? J Soc Issue. 1998;54(2):337–55.
- 52. Ungar M. Resilience across cultures and context. In: Handbook for working with children and youth pathways to resilience across cultures and context. London: SAGE; 2008.. http://www.resilienceproject.org/files/PDF/introduction\_resilience\_across\_cultures\_and\_contexts.pdf.
- 53. Ungar M. What is resilience across cultures and contexts? Advances to the theory of positive development among individuals and families under stress. J Fam Psychotherapy. 2010;21(1):1–16.
- 54. Panter-Brick C, Grimon MP, Kalin M, Eggerman M. Trauma memories, mental health, and resilience: a prospective study of Afghan youth. J Child Psychol Psychiatry. 2014;56(7):814–25.
- Pulvirenti M, Mason G. Resilience and survival: refugee women and violence. ANZCC: the Australian and New Zealand Critical Criminology Conference 2010. Sydney: Institute of Criminology, University of Sydney; 2011.
- 56. Lusk MW, Chavez-Baray S. Mental health and the role of culture and resilience in refugees fleeing violence. Environ Soc Psychol. 2017;2(1):1–13.
- Panter-Brick C, Eggerman M. Understanding culture, resilience, and mental health: the production of hope. In: Ungar M, editor. The social ecology of resilience. New York: Springer; 2011. p. 369–86.

58. Fleming J, Ledogar RJ. Resilience, and evolving concept: a review of literature relevant to aboriginal research. Pimatisiwin. 2010;6(2):7–23.

- 59. Barber BK. Annual Research Review: the experience of youth with political conflict challenging notions of resilience and encouraging research refinement. J Child Psychol Psychiatry. 2013;54(4):461–73.
- 60. Lee JH, Kyung SK, Kim AR, Kim B, Lee MY, Lee SM. Resilience: a meta-analytic approach. J Couns Dev. 2013;91(3):269–79.
- 61. Munford R, Sanders J. Drawing out strengths and building capacity in social work with troubled young women. Child Fam Soc Work. 2008;13(1):2–11.
- 62. Almendon AM, Glandon D. Resilience is not the absence of PTSD any more than health is the absence of disease. J Loss Trauma. 2007:12:127–43.
- 63. Bonanno G, Mancini A. Beyond resilience and PTSD: mapping the heterogeneity of responses to potential trauma. Psychol Trauma Theory Res Pract Policy. 2012;4:74–83.
- 64. Anderson KM. The power of recovery: resilience, posttraumatic growth and strengths. In: Anderson KM, editor. Enhancing resilience in survivors of family violence. New York: Springer; 2010.
- 65. Gopal N, Nunlall R. Interrogating the resilience of women affected by violence. Agenda. 2017;31(2):63–73.
- 66. Jordan JC. Deconstructing resilience: why gender and power matter in responding to climate stress in Bangladesh. Climate Develop. 2018;11:167–79.
- 67. McGowan JA, Brown J, Lampe FC, Lipman M, Smith C, Rodger A. Resilience and physical and mental well-being in adults with and without HIV. AIDS Behav. 2018;22(5):1688–98.
- 68. Cote M. Resilience thinking meets social theory: situating social change in socio-ecological systems (SES) research. Prog Human Geogr. 2011;1(15):475–89.
- 69. Ziglio E. Strengthening resilience: a priority shared by health 2020 and the sustainable development goals. Copenhagen: World Health Organization; 2017.. http://www.euro.who.int/\_data/assets/pdf\_file/0005/351284/resilience-report-20171004-h1635.pdf?ua=1
- Murray K, Zautra A. In: Ungar M, editor.. The social ecology of resilience: a handbook of theory and practice Community resilience: fostering recovery, sustainability, and growth. New York: Springer Science+Business Media; 2012. p. 337–45.
- 71. Ungar M. The social ecology of resilience: addressing contextual and cultural ambiguity of a nascent construct. Am J Orthopsychiatry. 2011;81(1):1–17.
- 72. Ziervogel G, Pelling M, Cartwright A, Chu E, Deshpande T, Leila H. Inserting rights and justice into urban resilience: a focus on everyday risk. Environ Urban. 2017;29(1):123–38.
- 73. Béne C, Heady D, Haddad L, Grebmer K. Is resilience a useful concept in the context of food security and nutrition programmes? Some conceptual and practical considerations. Food Security. 2016;8:123–38.
- 74. Capano G, Woo JJ. Resilience and robustness in policy design: a critical appraisal. New York: Springer Science+Business Media; 2016.
- Béné C, Newsham A, Davies M, Ulrichs M, Godfrey-Wood R. Resilience, poverty and development. J Int Develop. 2014;26(5):598–623.
- 76. UNISDR. Linking resilience thinking and transformative change: taking development debates to a new level. Geneva: UNISDR; 2017.. http://www.unrisd.org/resilience-krause
- 77. Bahadur A. Reimagining resilience: bringing resilience, transformation and vulnerability closer for tackling climate change. 2016. https://www.researchgate.net/publication/315764633\_Reimagining\_Resilience\_Bringing\_resilience\_transformation\_and\_vulnerability\_closer\_for\_tackling\_climate\_change.
- 78. Hirani S, Lsiuk G, Hegadoren K. The intersection of gender and resilience. Psychiat Mental Health Nurs. 2016;23(6–7):455–67.
- 79. Fergusson DM, Horwood JL. Resilience to childhood adversity: results of a 21 year study. In: Resilience and vulnerability: adaptation in the context of childhood adversities. Cambridge: Cambridge University Press; 2003.

- 80. Cordero A. Understanding experiences of female survivors of domestic violence: stories of strength, resilience, and mechanisms that assist in leaving violent relationships. Utah: UthaState University; 2014.
- 81. Smyth I, Sweetman C. Introduction: gender and resilience. Gen Develop. 2015;23:405-14.
- 82. Bonnano GA, Galea S, Bucciarelli A, Vlahov D. What predicts psychological resilience after disaster? The role of demographics, resources, and life stress. J Consult Clin Psychol. 2007;75(5):671–82.
- 83. Matud PM. Gender differences in stress and coping styles. Personal Individ Differ. 2004;37:1401–15.
- 84. Boardman JD, Blalock CL, Button TM. Sex differences in the heritability of resilience. Twin Res Hum Genet. 2009;11(1):12–27.
- 85. Voges MA, Romney DM. Risk and resiliency factors in posttraumatic stress disorder. Ann Gen Hosp Psychiatry. 2003;2:4.
- 86. Kelly MM, Tyrka AR, Price LH, Carpenter LL. Sex differences in the use of coping strategies: predictors of anxiety and depressive symptoms. Depress Anxiety. 2008;25(10):839–46.
- 87. Banyard VL, Graham-Berman SA. Can women cope? A gender analysis of theories of coping with stress. Psychol Women Q. 1993;17:303–18.
- 88. Crawford E. Women's understanding of effects of domestic abuse: the impact on their identity, sense of self and resilience. A grounded theory approach. J Int Women's Stud. 2009;11(2):63–82.
- 89. Duma S. The pain of being a women: an in-depth research on recovery from sexual assault trauma. Durban: Mepho Publishers; 2016.
- Stratta P, Capanna C, Patriarca S, Cataldoa S, Bonanni R, Riccardi I, et al. Resilience in adolescence: Gender differences two years after the earthquake of L'Aquila. Pers Individ Dif. 2013;54(3):327–3.
- 91. Hildon Z, Smith G, Netuveli G, Blane D. Understanding adversity and resilience at older ages. Sociol Health Ill. 2008;30(5):726–40.
- 92. Masood A, MAdus Y, Mazahir S. Gender differences in resilience in psychological distress of patients with burns. Burns. 2016;42(2):300–6.
- 93. Bradshaw S, Fordham M. Women, girls and disasters: a review for DFID. London: Department for International Development; 2013.. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/236656/women-girls-disasters.pdf
- 94. Drolet J, Dominelli L, Alston M, Ersing R, Mathbor G, Wu H. Women rebuilding lives post-disaster: innovative community practices for building resilience and promoting sustainable development. Gen Develop. 2015;23(3):433–48.
- Alston M, Whittenbury K. Research, action and policy: addressing the gendered impacts of climate change. Dordrecht: Springer Science; 2013.
- 96. Ensor J, Forrester J, Matin N. Bringing rights into resilience: revealing complexities of climate risks and social conflict. Disasters. 2018;42(Suppl 2):S287–305.
- 97. Cullen MR, Baiocchic M, Eggleston K, Loftus P, Fuchsf V. The weaker sex? Vulnerable men and women's resilience to socio-economic disadvantage. SSM Popul Health. 2016;2:512–24.



# **Intimate Partner Violence Against Women: Impact on Mental Health**

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#### **Abstract**

The aim of this chapter is to review and update the available knowledge and nurture the existing debate about the effects that intimate partner violence has upon women's mental health. First, we revisit the first classic explanatory theories that, for many decades, have tried to explain the cause of this violence unilaterally, only from the personality or the biographical history of women who were victims of it, risking a re-victimization of the subject during intervention. As time passed by, these explanatory theories acquired a growing complexity, until now, when this consideration holds a great importance in clinical practice as it states that our intervention must reach different levels. In this line of work, we consider of capital importance the ecological theory, which we will describe in depth further along.

To analyse the effect that violence against women from a current or previous intimate partner (from now on *intimate partner violence* against women or IPV against women) has on the victim's psyche, we must start by reviewing some of the psychological phenomena related with long-lasting interpersonal traumatic experiences. To do so, we study the paradoxical adaptation to violence syndrome, coercive persuasion, the cycle of violence and the current knowledge about trauma, attachment and bonding. Next, we include a section in which we update the existing literature and knowledge about the connection between IPV against

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women and different disorders described in psychiatric classifications. Performing this analysis, we consider of capital importance the need to understand the complex relation between IPV against women, dissociative symptoms, complex post-traumatic stress disorder and borderline personality disorder. We shall end this chapter with some general thoughts that we believe to be fundamental for therapeutic intervention.

#### 3.1 Introduction

In this chapter we will review a terribly complex issue that arises a growing interest in both clinical investigation and intervention. Indeed, we are referring to IPV against women and its repercussions on mental health. This type of violence is set within what the UN defined, already in 1993, as Gender Violence: "any act of gender-based violence that results in, or is likely to result in, physical, sexual, or psychological harm or suffering to women, including threats of such acts, coercion or arbitrary deprivation of liberty, whether occurring in public or private life" [1].

The World Health Organization (WHO) stated, in its 2013 dossier, that it is a public health issue of an epidemic scale. This publication reported that nearly 30% of women who had been involved in a couple's relationship said to have suffered some sort of violence, be it physical and/or sexual, from an intimate partner at some point of their lives [2]. Moreover, in the same dossier, and confirmed by different and independent investigations, the consequences of IPV against women in their global—physical and mental—health are amply recognized [3–5].

The existing links between IPV against women and psychopathology are many, complex and two-way. What this comes to say is that women who suffer this type of violence are in a greater risk to suffer mental ill-health and that suffering a mental health disorder increases the risk to become a victim to IPV.

When discussing the kind of mental health disorders associated to IPV against women, there is a strongly researched and documented relation to different well-described disorders including, but not limited to, depression, dysthymia, suicidal behaviour, generalized anxiety, phobias, post-traumatic stress disorder and substance abuse [7, 8]. Some published papers show that when psychological violence is involved, the correlation between these strengthens [9]. Additionally, women who suffer IPV consume greater quantities of antidepressants, anxiolytics and analgesics than nonexposed women. IPV-exposed women also suffer greater odds of abusing psychoactive drugs in general [10].

When faced with the need to give a proper diagnosis and treatment to female victims of IPV, we must acknowledge that they will manifest, in some cases, certain symptoms that have a different meaning if considered secondary to a context of violence. This difference affects the healthcare provider as much as the victim. Take, as

an example, anxiety; it can be considered as a natural response to a state of constant danger or also sadness, feelings of worthlessness and helplessness and lack of self-worth, which may be considered as perfectly reasonable consequences of a situation in which the victim has felt downgraded, humiliated, threatened and attacked. In many cases, there is an increased feeling of sadness when women realize their situation and become aware of the self-delusional situation in which they had dwelled [11, 12].

This reveals that taking social context into consideration is of the utmost importance when analysing the existing psychopathology manifested by women who have suffered IPV, as well as the need to transcend diagnostic categories when dealing with these situations [13].

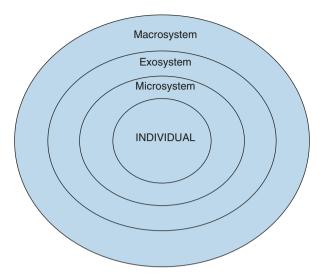
### 3.2 Explanatory Models

The inherent complexity of gender violence has led to the development of different models that strive to explain how this particular phenomenon appears and persists. From our point of view, one of the most solid models, from a broad perspective, to study such issue is the ecological systems theory. Initially developed to explain the results obtained in various studies on child abuse, it was later repurposed to understand and explain gender violence. The ecological model still stands valid in current reviews on the subject [14] and is the recommended model by different international organizations such as WHO, the United Nations Development Fund for Women (from the French term, UNIFEM) or the American Psychology Association (APA). The perspective given by this model rises from the belief in a multicausal origin for situations of gender violence and establishes how these causes operate simultaneously on different levels. By this we understand that no single factor can, on its own, explain how some people are at a greater risk than others to suffer gender violence [15].

The ecological systems theory was initially proposed by Bronfenbrenner [16] and states that, when faced with the task of understanding human development, it is necessary to go beyond the subject's current behaviour, becoming thus crucial to take into consideration the social context in which it appears, as well as the existing interactions between the different systems to which the subject belongs. This achieves an inclusive perspective on gender violence and distinguishes it from other theoretical theories that only include and consider part of the problem.

Heise [17], employing this ecological perspective, describes different causes that originate this type of violence, taking into account the interaction of psychological, social and cultural factors. To achieve this goal, factors are classified on different levels. We can refer to different factors involved in four interrelated layers that are described as pertaining to the individual, a microsystem, an exosystem and a macrosystem. We shall next describe them in detail.

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#### 3.2.1 Individual

The individual level corresponds to the personal and biographical history of a person, developed just until the participation in a couple's relationship. The different cognitive, emotional, behavioural and biological factors involved exert a specific influence on how people establish their relationships. On this particular layer, we include as the major influencing factors the beliefs we learn within our families of origin and the specific abilities each one of us develops to cope with stressful situations.

In this sense, some authors have studied the impact of certain elements that participate in the developmental history of male abusers. These investigators stress the importance of stiffness of gender roles in the family of origin, the influence of the different genders in the individual's personal history, the use of violence as a means to solve problems, the existence of violence within the family, child abuse and the development of attachment as especially relevant factors [18, 19].

## 3.2.2 Microsystem

This layer is represented by the person's closest context, mainly referred to family relations as well as to the established roles in them. Especially worth mentioning are those families in which substance abuse exists, be it alcohol or other drugs, due to the fact that they may act as disinhibiting elements of behaviour, facilitating the apparition of aggressive events. In many occasions, substance use is more common in families with low tolerance to stress, which involves a greater difficulty to solve inherent conflicts. The specific role alcohol plays to facilitate aggressive behaviours in gender violence is yet unclear, due to the fact that different researchers have reached different conclusions [20, 21].

#### 3.2.3 Exosystem

It represents intermediate institutions that connect the individual with his or her culture, which are responsible for transmitting authoritarian and sexist values [22]. These formal or informal structures are represented by neighbourhood, workplace relationships, school, healthcare system, church and judicial and administrative bodies.

Moreover, some related elements, as a greater economic independence may be, which have traditionally been considered as protective factors for women when faced with gender violence, can become risk factors when we take into account the cultural context (macrosystem). Elsberg and Heise advise and warn us in this aspect, acknowledging that in gender violence situations, the different elements that entail risk or protection are complex and intertwined, and we must take care not to fall into reductionisms. The interaction of these factors with the cultural context involved may lead to unexpected effects, concluding that, when we are speaking about gender violence, what is considered valid in one particular cultural context might not be applicable to another [23]. Following this idea, in a research conducted in mental health consultation rooms in Madrid trying to detect IPV against women, various demographic variables were studied, and it was concluded that there was a lesser prevalence of sexual and physical violence among women who did not work outside their homes, compared to the greater prevalence of psychological violence detected in unemployed women [24].

## 3.2.4 Macrosystem

The macrosystem layer is composed by the array of beliefs, values and ideologies that sustain the culture in which the individual is immersed. Deep within our culture, male chauvinistic beliefs are ever present, and, in many occasions, they legitimize the use of aggression. These beliefs, transmitted through the socialization processes all throughout the life of individuals, have a profound impact in cultural aspects such as the definitions of masculinity and femininity, as well as the gender-associated roles that dictate how men and women must behave. This cultural knowledge, transmitted by socialization, is progressively interiorized and accepted as a fixed structure in every single individual's personality.

In this sense, patriarchate culture and its inherent values play, without a shadow of doubt, a major role. In this kind of society, it is generally assumed that women are subordinate to men, and so give the latter exclusive privileges, through which men can exert authority [25]. According to the European Union's (EU) 2010 Eurobarometer [26], which included a set of polls conducted on 26,800 residents from different member countries, some interesting data was provided: 18% of people thought that gender violence was common in their country. When asked on how to fight against gender violence, 80% of those who replied considered that educating the young in mutual respect would be very positive, posing the issue as a sociocultural matter. Additionally, 15% of those surveyed thought poorly or very poorly about the

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rehabilitation of abusers, considering it of little or no help. 96% of participants considered gender violence against women as unacceptable, although 12% of them revealed to believe that it should not always be punished by law, assuming it to be a minor issue or that it pertained to a personal and private area. Finally, 9% of all the respondents thought that this was not an issue that needed to be addresses by the EU.

# 3.3 Vulnerability Factors: Attachment, Trauma, Resilience and Intimate Partner Violence Against Women

As we have previously shown, most studies conclude that IPV against women derives from the unbalanced relationship established between both members of a couple originated from a gender-unequal social context. Despite this, other risk factors that increase women's vulnerability to IPV have been described. Among these other factors, the process of attachment during adulthood has been intensely studied. For example, in a research surveying a group of 260 women, it was noted that those of them who had suffered IPV had higher levels of anxious attachment, low self-esteem, need for approval and fear of rejection, than women nonexposed to violence. In the same study, it was also discovered that women who had fallen victims to IPV suffered physiological, sensory-motor, emotional and cognitive alterations and an impairment in five cognitive functions studied: emotional regulation, self-affirmation, assertiveness, assessment and awareness. These cognitive abilities were evaluated via the MARA enquiry, through 90 different items pertaining to the 5 functions previously quoted, organized in 3 different areas: family of origin, relationship with oneself and relationship with an intimate partner [19].

In another recent empirical study, in which 151 women who had suffered IPV were included, it was observed that the insecure-like personality, and more specifically anxious personality, was the most prevalent in this group of mistreated women. The data obtained matches with the knowledge collected by other studies about attachment and trauma. In the same research conducted on 151 women victims of IPV, the possible protective role played by avoidance in battered women was discussed, suggesting that it might aid to develop adaptive behaviours when faced with IPV. Moreover, it was observed that, on the one hand, resilience acts as a protective factor, while on the other hand, emotional coping acts as a risk factor for developing psychopathology in abused women [27].

# 3.4 Psychic Changes in People Exposed to Protracted Traumas

Next, we will explain some of the changes in mental and psychological functioning that have been described in people who have suffered long-term traumatic events, stressing the common elements to those processes observed in victims of gender violence.

#### 3.4.1 Coercive Persuasion

Coercive persuasion is a phenomenon first studied among North American war prisoners in the Korean War, and it may be useful to help us comprehend the effects of being involved in a relationship in which one partner continuously pressures the other. This phenomenon may shed some light on our attempts to understand the complex cognitive processes at play that influence the continuance of an abusive situation, a matter that is always contested when there is a shallow knowledge of the issue of study [28, 29].

In the scientific literature, this concept of "coercive persuasion" has, on many occasions, been linked to the concept of "brainwash", a process that many authors, such as Miller, postulate has as the usual result the loss of the original identity by victims [30]. This theory is currently especially useful for different authors who seek to understand the continuance of abusive situations [12, 31–33]. Brainwashing, usually associated with religious sects, is achieved through a series of enabling attitudes:

- 1. Captivity, which facilitates the development of learned helplessness
- 2. Impaired health
- 3. Isolation
- 4. Propaganda, represented in gender violence by the ongoing personal attacks
- 5. The onset of states of nervous anxiety, through threats and changing and rarely predictable behaviours

Coercive persuasion is a means to influence a person who is subjected to a certain pressure for an extended period of time, be it through physical or psychological elements, with the goal to achieve their social exclusion. In people submitted to this kind of violent pressure, it is frequent the onset of dissociative symptoms, such as amnesia and emotional detachment and numbness, and even other symptoms, such as depersonalization, may appear. Similarly, some authors, such as Lowenstein and Putnam, note that people subjected to coercion usually show behavioural regression, lack of cognitive flexibility and important changes in their beliefs, values, attitudes and even sense of self [34]. This may explain how, in many occasions, close relatives and friends of gender violence victims might be unable to recognize them in their behaviours and thoughts.

Both two words that compose the term "coercive persuasion" are defined, according to Carballeira [35]: the first term, coercive, is referred to the kind of unsubtle and truly intense pressure imposed to the victim, making the persuasive effects more likely to succeed by the boundaries set to their freedom of choice. This leads to the second term, persuasion, that alludes to the existence of a person who, deliberately, intends to influence the behaviour or activity of another in order to achieve a predetermined goal. It must be understood that persuasion victims are utterly unaware of the pressure that is being exerted over them.

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In relation to these concepts, Boulette and Andersen list a series of coercive strategies specifically tied to gender violence [36], as follows:

- 1. Use of dominance strategies from the beginning of the relationship that the women justify as adequate for a strong-willed man
- 2. Isolation or entrapment
- 3. Escalation of fear
- 4. Guilt inducement
- 5. Fixed expressions of love
- 6. Loyalty towards the aggressor
- 7. Promotion of helplessness or invalidity
- 8. Pathological expressions of jealousy
- 9. Intermittent reinforcement through hope-inducing behaviours
- 10. Mandatory requirement of secrecy

In conclusion, this arrange of control strategies will achieve the goal of making the victim develop a progressive state of emotional confusion, distorted thoughts and inaction that hamper her ability to abandon the established relationship with the abusive partner.

In a study performed with a qualitative methodology in our environment, including nine groups of discussion with women who had been subjected to IPV in different moments of their lives, it was observed that coercive persuasion was a valid theory, capable of explaining the strategies, applied as behaviours, that appear in gender violence and their effects over the victims. In this research, through the study of the discourses formed by victims of IPV against women, it was also observed the role played by emotions as elements that contribute to the establishment of an abusive situation. As it is, the emotion of fear induces the victim's inaction; guilt, imposed by persuasion, sets bonds between the victim and the abuser through its restorative properties, while shame leads to the victim's social withdrawal and eager attempts to completely hide the abusive situation, and so increasing the victim's social exclusion [37].

# 3.4.2 Domestic Stockholm Syndrome

Stockholm syndrome was first conceptualized by the Swede Nils Berjerot to explain the paradoxical phenomenon observed during a bank heist, of positive bonding stablished between hostages and captors [38]. In these cases, the victim identifies itself with the aggressor in a way that enables automatic and unconscious emotional responses.

The main adaptive function that this syndrome implies for the victims is the induction of hope in a seemingly hopeless situation, through the mechanisms of cognitive distortion, minimization, negation or rationalization of abuse [39]. The "Stockholm syndrome" tag has been applied to different contexts in order to explain the paradoxical bonds developed in those relationships classifiable as abusive. Among these situations we can include those intimate relationships in which gender violence is involved (IPV) [40, 41].

# 3.4.3 Paradoxical Adaptation to Domestic Violence Syndrome

Paradoxical adaptation to domestic violence syndrome (PADVS) is a theory ideated by Montero Gómez trying to explain the commitment of a woman to a violent and abusive relationship through the generation of paradoxical bonds [42]. This theory, still applied in current investigations as an explanatory model [31, 43, 44], was developed following the Stockholm syndrome theory but applied specifically to gender violence cases.

PADVS initially appears as a psychopathological response, followed by the set of cognitive modifications that occur in traumatic abusive domestic environments. More exactly, we may define PADVS as the array of psychological processes that culminate with the paradoxical development of an interpersonal bond where the female victim feels the need to protect the abusive partner. This set of processes is observed as a series of cognitive and behavioural, as well as physiological and emotional, responses that appear in the context of emotional holding patterns. To sum it all up, this mental model postulates that, in a particular context, there is a psychophysiological reaction that seeks to restore the physiological and behavioural balance, in order to protect the victim's psychological integrity. We must thereby consider PADVS as an active adaptive mechanism, which aims to reduce the massive incidence of stressful threats that the victim endures.

The development of PADVS progresses through four different stages:

First stage: Trigger. This syndrome generally appears with the onset of physical violence in the couple's relationship, which represents a breach in the confidence and safety provided, until then, by the same intimate relationship. To the victim, the distinction between safety and risk blurs, and both concepts become mixed together. From a neuroendocrine perspective, it is during this phase that all common responses to acute danger appear. On a cognitive level, attention channels become tampered and biased to threat perception, reducing accordingly the number of stimuli that reach the victim's consciousness. It is usual in this situation for the victim to become disoriented about the source of the aggression, the intimate partner, unleashing a wide array of negative emotions. Among these emotions we can describe anguish, anger and the feeling of loss.

Second stage: Reshaping. This state of uncertainty in which the victim finds herself ends up having an impact on her self-esteem and self-portrayal. The fact that her intimate partner has become an unpredictable threat, and as a consequence of the high levels of stress chronically sustained, such a level of disruption is generated that it causes a major impairment to the victim's physical and psychological capabilities [45]. This exceedingly stressful setting, from the victim's frame of reference, can be even more harmful to those stay-at-home women who suffer IPV, due to the greater emotional weight that domestic life has on their self-concept. It is not uncommon for women to feel there is no escape from this situation of maltreatment, which leads them to develop social isolation and impaired communication skills. At this point, victims start to develop coping strategies to adapt to this situation of continuous stress. Seeking to understand the aggressions suffered, victims frequently blame themselves for the suffered violence, assigning its cause to an improper behaviour on their behalf. The most characteristic aspect of this stage is

the victims' quest for balance between their belief systems, external references, self-blaming damaged self-esteem and the violent nature of their intimate relation.

Third stage: Coping. During this phase, the victims' coping capacity is going to be modulated by personal variables, such as their coping strategy style, and by contextual variables, such as the perceived social support. We must not forget to take into account certain vulnerability factors to abuse, as having been exposed to violence during childhood or teenage years might be.

Overall, many women see their coping strategies as poorly effective and feel their environment to be out of control. These perceptions favour the development of victimization behaviours, a kind of behaviour that matches what was postulated by Seligman's theory of learned helplessness. In the case of IPV against women, it results in a passive attitude towards their situation, given that it is perceived as inevitable [46]. From then on, we may describe stress without triggered coping reactions, emotional numbness and a greatly decreased sensibility of the victim, as well as a strengthening of her passive behaviours.

Fourth stage: Adaptation. This last stage is defined by the woman's passive resistance and the paradoxical adaptation to abuse. Reached this point, she has achieved such a degree of psychophysical impairment that she doubts her own capacity to make reasonable judgements, feels inferior and houses little hope for a change in her situation, given her available resources, becoming by so dependent on her abuser. During this phase, it is common for women to deviate blame from their aggressor to exogenous elements. As it is stated by O'Leary, 75% of battered women do not believe to be involved in a problematic relationship and ascribe the aggressions to outside elements without identifying an intention to harm by their partnerabuser [47]. During this stage, women undergo a cognitive restructuring, adopting their abuser's mental frame, ideas, reasoning and arguments as their own. Women, thusly, blame themselves for the existing violent situation, giving place to cognitive dissonance and rejection, gradually generating a cognitive bond with their aggressor as a means to adapt to their situation and ascribing the violence suffered to foreign elements.

# 3.4.4 Cycle of Violence

Walker, in 1979, described the cycle of violence theory, useful for us to understand the state of defencelessness in which we find women who have suffered gender violence and to comprehend the obstacles they face in order to escape from this situation [48]. It is, without a doubt, a currently standing explanatory model, useful for approaching the phenomenon that is gender violence [27, 49].

The author described three stages that compose this cycle and repeat endlessly over time:

Tension-building phase: During this first stage, a gradual increase in tension gives cue to the onset of the first hostile acts, although this does not happen in an explosive manner. Faced with this situation, women will try to ease the tension with passive, submissive or plainly nonaggressive behaviours, trying to calm and please

the male aggressor. These strategies may sometimes be effective, giving women a false sense of control, albeit limited, over their partner. As time goes by, the hostile acts will become more unpredictable leading to the victim's sense of helplessness and retreat when faced with abuse by the intimate partner in order to avoid provoking him, granting the aggressor the opportunity to become even more oppressive.

Violent episode or critical phase: The built up tension continues to grow until it reaches a critical point in which the most extreme physical, psychological or sexual aggressions occur. It is usually during this stage that the victim looks for help. After the usually short-lived violent episode, a period of greatly decreased tension ensues.

Remorseful or honeymoon phase: During this third stage, the aggressor acts remorseful, displaying kindness towards the victim, taking care of her and even promising a change in his ways. Women, wishing to believe the aggressor, renew their hopes for the promised change. The good care and even reappearance of behaviours displayed during courtship by the aggressor act as a positive reinforcement hindering the victim's desire and capability to put an end to the relationship.

This cycle will repeat itself over time during the relationship, and, as it is suggested by Hirigoyen, it will gradually increase its pace, turning into a spiral of violence that keeps constantly growing in intensity [50]. The honeymoon phase will become shorter as the cycle goes on, while the other two phases will see their relevance increased. It will progressively become a part of the victim's baseline situation, increasing therefore her tolerance to violence. In a research published many years after her first description of the cycle of violence, Lenore Walker [51] suggested the utility of evaluating and improving intervention, allowing women to work with different charts and graphical scales to help them identify the different elements and phases of the cycle, improving the grasp they may have over their own lives.

# 3.5 Specific Aspects of Mental Health Issues in Women Victims of Intimate Partner Violence Against Women

According to some studies, the prevalence of common mental disorders among women who have experienced some sort of IPV, be it physical, psychological or sexual, can reach up to 50% [52]. Other types of violence against women, different to those perpetrated by a current or prior intimate partner, such as sexual assault and harassment by strangers, are also associated to psychosocial issues [53]. For these reasons, the WHO suggests a gender perspective that takes into account specific elements related to women's health, such as IPV against women, when analysing women's mental health [54].

The risk that IPV against women has to affect mental health is peculiarly high during the first few years of exposure [55], mainly when psychological violence is involved, situation that promotes the gradual diminishing of the women's self-esteem [56], even though one investigation comparing mental health recovery of women who have suffered psychological IPV with that of another group of women who have suffered physical and psychological IPV shows that recovery was more common among

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those who had suffered both kinds of violence [57]. In the same study, it remained unclear whether this discovery was linked to the termination of the intimate relationship, an event more prone to happen when physical violence is involved. From a longitudinal point of view, age may act as a confusion bias when analysing this phenomenon because young women are at a greater risk to be suffering gender violence in the current moment, while older women have had many more gender violence-related experiences throughout their lives [58]. This violence, be it applied currently or throughout the victim's lifespan, always increases the risk of suffering mental ill-health.

# 3.5.1 SMI and IPV Against Women

Serious mental illness, or SMI for short, is a concept for which there has been great trouble to unify and align criteria. In this chapter, we opt for the definition given by Goldman et al., considering it as a specific category that includes being diagnosed of either a psychotic disorder (schizophrenia, schizoaffective disorder, bipolar disorder or other kinds of psychosis) or a serious personality disorder, which may lead to disability, implying an everlasting alteration of the patient's functionality as a chronic process [59]. One research conducted in the Spanish society showed that women who suffer from a SMI are extremely vulnerable to IPV, with an observed prevalence of 30.3% during the last year and 79.6% during their lives [60]. A later research conducted in Germany revealed similar numbers in their conclusions, referring that 67% of women with a SMI said to have experienced IPV [61]. Moreover, the analysis of a national sample of women with SMI in the United Kingdom revealed a prevalence of IPV during the last year of 21% and that these women had an increased chance of committing suicide attempts when they were subjected to violence [62].

One investigation conducted in India reported that people who abuse women with SMI, especially through sexual coercion, are usually the victim's intimate partner, close friends and acquaintances or other family members. Most of these abuse experiences happened in the victim's household, and more than 60% of those women did not tell anybody about it nor did they seek help [63]. These women expressed feelings of helplessness, fear and need for secrecy regarding such experiences.

According to Moskowitz et al. [64], several studies suggest that having suffered physical and sexual abuse during infancy plays a major role in the development of mental ill-health, even psychoticism, during adulthood. In people diagnosed with schizophrenia, those who confessed a previous history of sexual abuse during child-hood were revealed to be keener to experience positive symptoms including, but not limited to, self-referential ideas, auditory hallucinations (comments), ideas of damage, ideas of thought insertion and visual hallucinations. The correlation between victimization and psychosis suggests that both trauma and symptoms are complexly correlated in a bidirectional manner. Additionally, many abuse survivors, due to the psychotic symptoms they may manifest, may be wrongly diagnosed of schizophrenia-spectrum disorders when PTSD-spectrum pathology would be more appropriate.

Cognitive and behavioural manifestations of schizophrenia, as, for example, an altered sense of reality or impaired executive and social abilities, increase

vulnerability towards coercive or sexually exploitative relations. Abuse acts also as a stressor that may trigger a first episode in susceptible people or as a risk factor for relapse mediated by other factors such as social exclusion and loneliness [65]. One investigation shows that this situation may predispose to become an aggressor, a victim or both [66]. Stigmatization and social isolation thin out the support web available, and thus, when IPV against women appears, it becomes less likely to receive help [67]. We must also add to this fact that social and judicial services may use the condition of mental ill-health to doubt the truthfulness of the victim's testimony and their self-care capabilities, as well as their capacity to take care of their siblings, giving place to re-victimization.

# 3.5.2 Depression and Suicide

Depression is one of the major causes for disability among women aged between 15 and 44 years, being twice as likely for a woman to develop depression over her life than it is for a man. This statistical discovery entitles us to speak of a significant gender gap [68]. Some authors try to explain this prevalence difference of affective disorders by considering, among other things, the link between suffering IPV against women with all the spectrum of depression disorders, from subsyndromic symptoms to serious, chronic and recurring conditions, dysthymia and postpartum depression [69].

One meta-analysis research found an increased (twice or thrice) risk to suffer depressive symptoms and postpartum depression in women exposed to IPV, compared to those women who had not experienced it [70]. When referring to the connection between IPV against women and postpartum depression, some studies do not find any relation to socio-economic status [71].

One hypothesis sustains that behavioural and psychological manifestations of chronic abuse reflect an extraordinary harm to the victim's "self", targeted by their own hate and aggression. This becomes manifest by a wide range of behaviours, from resignation and depression to repeated acts of self-mutilation and attempted suicide. Such self-destructive behaviour is related to feelings of hopelessness, worthlessness, shame and guilt. Victims will find it difficult to handle their anger and aggression, as well as their self-image and confidence. After years of sustained abuse, victims blame themselves and believe that the only explanation for the abuse is that there is something wrong with them [28].

According to Devries et al. [72], the connection between IPV against women, depressive symptoms and suicidal behaviours seems to be much more complex and two-way than it may be believed initially. These authors believe that one association is that IPV lays a path for the onset of depression and suicide attempts through the traumatic stress caused. This can be corroborated by the high comorbidity of depression and PTSD in these women, reaching over 40% [73]. The second association proposed by Devries et al. is that depression and attempted suicide convey a greater risk for IPV against women to happen, by the increased risk of victimization, even when only suffering minor depression disorders. The third possible association

proposed is that IPV, depression and suicide attempts have common factors, which could explain the existing correlation between them. One example of these common elements would be, among others, the poor social support network available to them.

One of the most strongly related elements to depression in IPV against women is having witnesses parental IPV [74] and having suffered childhood sexual abuse (CSA) [75]. The situation of cross-violence, being victim and perpetrator, also increases the risk to develop depressive symptoms, among men and women alike, regardless of whether the exposure to domestic violence happened during adolescence or as young adults [76]. According to Lövestad el al., there is a strong correlation between symptoms of depression and having experienced behaviours of authoritarian control from an intimate partner, behaviours considered to be a particular kind of psychological violence [77]. Psychological abuse and harassment contribute independently towards the development of PTSD and depression, even after having taken into account other related variables, such as physical and sexual violence [78].

The association between IPV against women and suicide has been checked in many investigations where an important correlation has been found [79]. Violence may precede completed and attempted suicides, but more longitudinal studies are required to successfully link IPV against women to attempted suicide. One multicentric research concluded that, although prevalence varied between countries, IPV against women was indeed an evident risk factor for attempted suicide and suicidal ideation over the lifetime and over the last 4 weeks [80]. In the same research, additional risk factors were detected, such as physical abuse perpetrated by someone other than the intimate partner; having been divorced, separated or widowed; childhood sexual abuse; and having a mother who has suffered from IPV.

Lorente et al. state that "suicide is the most dramatic manifestation of gender-violence, representing a woman's most absolute submission, a desire to free herself from violence, more than a decreased desire to live, often happening as an escape from painful circumstances. The most common cause for suicide is the perception, from the victim's point of view, that life is so painful that only death can provide relief to her" [81].

Among the first investigations conducted on this issue, Stark and Flitcraft [82] found that almost a third of all women who had entered an emergency service due to suicide attempts were battered women. They also found that half of them had been abused the same day and a majority of them during the six previous months. According to their conclusions, maltreatment could be the cause for 25% of women's suicide attempts. There is no available data about completed suicides, although it is believed that an important percentage of women who commit suicide every year may had been subjected to ill treatment.

#### 3.5.3 PTSD

PTSD emanates from the exposure to violent and traumatic experiences, including IPV experiences. In the DSM-IV [83], it was already stated that for this disorder to happen, the traumatic event doesn't need to be extraordinary nor unexpected.

Symptoms include (a) persistent re-experiencing of the event (flashbacks, night-mares) which keeps fear updated; (b) persistent avoidance of stimuli associated to the traumatic event and emotional numbness, which also implies a refusal to remember traumatic experiences, that may even lead to a disconnection from the self (which can even be manifested in its most dramatic degree as dissociative symptoms); and (c) persistent symptoms that result from a maintained augmented psychological stimulation, which induces a state of constant alert in the victim, altering their ability to rest and hampering recovery. All of this can be explained as a paradoxical behaviour mediated by learned helplessness. As shown in studies conducted on battered women who experience PTSD, the predominant symptoms are re-experiencing and hyperactivation, rather than the less common symptoms of avoidance [84].

Some investigations show that PTSD is experienced by 31–84% of women who have fallen victims to IPV, depending on the statistical measuring tool employed [85, 86]. Moreover, it seems that PTSD, in the most extreme cases of IPV, is deeply related to physical health issues [87].

According to some studies, as a consequence of maltreatment, there is a high percentage of chronicity. The longer the intimate relation with the abuser lasts, the more easily will PTSD occur [88]. Some factors, such as social support, coping strategies and the sort of abuse endured, may favour or deter the development of PTSD [89], as well as the abused women's personality type may [90].

A recent study found that PTSD symptoms mediate the correlation between self-harming and IPV [91]. According to the research of Pico-Alfonso [92], a PTSD diagnosis is more heavily associated to psychological IPV against women. In this same study, it is noted that the severity of violence is significantly related to the intensity of PTSD symptoms.

# 3.5.4 Complex PTSD

Among female victims of IPV, it is common to find a PTSD-like traumatic syndrome, described by Herman in 1992 as "complex post-traumatic stress syndrome" [11]. This c-PTSD stated by Herman is also referred to as disorder of extreme stress not otherwise specified (DESNOS), included as an appendix in the DSM-IV classification [83]. This disorder requires a previous history of interpersonal and chronic (meaning protracted and repeated) trauma with few possibilities of escaping the stressful situation, which fits perfectly with the usual circumstances involved in IPV against women [93]. This particularity sets c-PTSD apart from the usual PTSD, the latter usually referred to a specific traumatic event. DESNOS is also applicable to protracted child abuse, hostage situations, war prisoner situations with long-lasting confinement and organized sexual exploitation. Symptomatic clinical differences appear depending on age and on the type and nature of the trauma [94].

These people are, according to Herman, "violence survivors", who have endured coercive situations in which they suffered a total lack of freedom and power to even control their own lives for an extended period of time, together with feelings of fear,

and natural responses that should lead to fight or flight but have been seemingly useless to escape their condition.

Again, according to Herman, c-PTSD includes:

- (a) Alterations in affect regulation: persistent dysphoria, suicidal impulses, selfinjuries, explosive anger, compulsive or inhibited sexuality
- (b) Alterations in consciousness: amnesia for traumatic events, transient dissociative episodes, depersonalization/derealisation, reliving experiences, either in the form of PTSD symptoms and/or in the form of ruminative preoccupation
- (c) Alterations in self-perception: sense of helplessness or paralysis of initiative, shame, guilt, sense of defilement and stigma, sense of complete difference from others (it may include a sense of specialness, utter alones, belief that no other person can understand them or non-human identity)
- (d) Alterations in the perception of the perpetrator: preoccupation about the relationship with the perpetrator (including preoccupation for revenge), unrealistic attribution of total power to the perpetrator, idealization or paradoxical gratitude, sense of special or supernatural relationship, acceptance of the perpetrator's belief system or of his rationalizations
- (e) Alterations in relations with others: isolation and distancing from others (withdrawal), perturbed intimate relationships, constant search for a rescuer (may be alternated with isolation and withdrawal), persistent distrust, repeated failures of self-protection
- (f) Alterations in systems of meaning: loss of sense of support, sense of hopelessness and despair

This syndrome, applied to IPV against women victims, emphasizes the alterations in self-perception and perception of the perpetrator of violence while also indicating alterations in consciousness (dissociative symptoms). It also makes us realize the importance of avoidance and limiting behaviours, these being what may lead to wrongly diagnose the female victim as "passive" or "masochist", entailing so a secondary victimization. The c-PTSD diagnosis is more adequate than previously available diagnosis to describe the subjective states that protracted fear leads to develop, because it is a phenomenon that arises from a violent situation sustained in time, which is very common in relationships in which IPV against women is involved.

Complex PTSD leads to a chronic personality alteration that is similar in many aspects to the development of borderline personality disorder (BPD) and so challenges the described comorbidity associated between both entities or, at least, suggests a possible hue that includes PTSD, c-PTSD and BPD [95, 96].

The DSM-V classification does not include c-PTSD as an independent diagnostic category, rather maintaining the tendency set in the DSM-IV. Nonetheless, in the recently published CIE 11 classification, it has indeed been included and given a specific spot [97].

#### 3.5.5 Substance Abuse

Usually, the focus has been set on the perpetrator's substance abuse. However, almost 75% of women attending substance use treatment programs report having experienced IPV during their lives, and over 30% of them during the past year [98]. The frequent use of illegal tranquilizers, alcohol, marihuana, cocaine, crack and heroine has been associated by different cross-sectioned studies with IPV against women [99].

One investigation on the relation between substance use and IPV suggested as a possible connection the fact that substance use may lay the path for IPV against women to occur, or that experiencing IPV may lead to an increased use of substances, or that there is a two-way relation between both, substance use and IPV [100]. This means that psychoactive substances may cause cognitive alterations and provoke paranoid reactions, raising the odds for a violent interaction to happen or lowering the consumer's ability to assess the probable risk of future abuse. Moreover, it has been pointed out that women initiate or increase substance consumption to deal with the pain that experiencing IPV ensues. The use of tranquilizers or marihuana may be related to self-medication against the physical and psychological pain experienced by an episode of IPV.

Anxiety and post-traumatic stress symptoms are associated with a greater prevalence of consumption of alcohol and other drugs by women victims of IPV [101]. According to some research, 13.5% of IPV against women victims were found to be alcohol-dependent, compared to the 1.4% found in nonexposed women. Similarly, 22.8% of IPV against women victims were found to have used illicit drugs during the last year, against only the 2.8% of those women who weren't exposed to IPV [102].

A review of the available literature on the relation between IPV against women, mental health and substance abuse revealed that when it comes to clinical intervention, recommendations were set on the need to develop better collaboration, cooperation and integration between the different services that tend to these issues [6].

#### 3.5.6 Dissociative Disorders

Childhood traumas are common among both survivors and perpetrators of IPV. PTSD and dissociative symptoms act as victimization and perpetration warnings as well as predictors of IPV [103]. Peri-traumatic dissociation, dissociative traits and PTSD-related dissociation have been studied as three different types of dissociation that may develop in women who have survived IPV [104].

Among those patients with dissociative disorders, a great correlation was found between the experience of IPV against women and childhood abuse, which suggests a common developmental path [105], with dissociation acting as a mediating mechanism between both phenomena.

# 3.5.7 Psychosomatic Disorders

Violence acts as a stressor, and exposure to it probably induces a state of vulnerability to stress-related somatic syndromes and contributes to the expression and severity of symptomatology [106].

The association between abuse and somatization has been systematically poorly studied. In one investigation, psychological abuse, be it extended in time or exerted in a limited period, was stated to be related to somatization [107]. In a systems review performed while admitted to an internal medicine ward, women who had fallen victim to IPV responded positively to a greater number of symptoms [108]. Another research conducted in the USA among women of Mexican origin showed that women who had experienced IPV presented a higher number of somatic symptoms [109].

# 3.5.8 Eating Disorders

Little is known about eating disorders (ED) among victims of IPV against women. In some qualitative investigations, most of these women acknowledged, to some degree, behaviours related to ED [110]. People suffering ED (men and women alike) report a high prevalence of domestic violence throughout their lives [111]. In women exposed to IPV, the lack or limitation of social support is associated with an increased risk of developing ED [112].

# 3.6 Final Thoughts About Intervention and Impact on Healthcare Professionals

It is not the aim of this section to detail the different kinds of therapeutic interventions used to treat victims of IPV against women. To find the available literature about this issue, we highly recommend the works of Judith Herman [11] and Lenore Walker [113]. However, we will offer a brief reflection about it, as well as our considerations about education and the impact this issue has on healthcare providers.

Although we believe that in every intervention utilized in mental health, gender perspective should be taken into consideration, in the specific case of IPV against women victims, we cannot ignore it, or we risk re-victimization and causing iatrogenic effects. If we only consider gender violence as an individual issue and not as the result of a particular social context that defines gender identity and establishes the relations between both genders in a way that gender inequality is perpetuated, we will distort our possible intervention.

The inclusion of this gender perspective entails revisiting and deconstructing gender mandates, not only those which affect people seeking assistance but also the ones that affect the professionals treating them. Failure to meet this standard meets with consequences on the intrapsychic and intersubjective levels. Among women,

mandatory compliance to such models is associated to an increased vulnerability to be unable to detect relationships in which IPV occurs and so to the continuance of the abusive relation [31, 114].

In addition to incorporating gender perspective, we believe in the need to include the knowledge obtained from studies researching psychological trauma. In this regard, one of the crucial steps towards improving the therapeutic intervention is helping the woman restructure the traumatic experience, in order to aid her to understand the mechanisms employed by the abusive partner. At the same time, during the intervention, we shall evaluate with her the effect that such mechanisms had over the meaning she assigned to her experiences, emotions and even self-definition, as well as to her relationship with her aggressor [115]. In any case, during the trauma reconstruction phase, as during any of the other phases that may be involved in the therapeutic process, we must take into account the great importance of the patriarchal social setting in the construction of subjectivities and bonds.

One of the first female psychologists who developed a specific line of intervention for victims of IPV against women was Lenore Walker [113]. Since her first interventions as a psychologist, she stressed the importance of modifying traditional psychotherapy by incorporating the trauma's specific impact as well as feminist theory. The most relevant principles of her intervention are women's safety, their empowerment, ratification of women's own experiences, emphasizing their strengths, education, diversifying women's alternatives, restoring their judgement ability, comprehending oppression and enabling women to make their own decisions.

Beyond the inclusion of gender perspective and investigating trauma during the intervention, in every case of IPV against women, we believe it to be necessary to evaluate other aspects that may set different perspectives for the therapist. One of these elements would be the evolutionary moment in which the woman is immersed, regarding violence perception. This being so, if the woman has not yet identified violence in her relation by herself, but we are able to perceive signs of it, we recommend to partake an attitude that seeks to strengthen the therapeutic alliance, creating a safe space that may allow her to become aware of the context of abuse in which she lives, giving her the needed time without rushing the process.

In later stages of intervention, when the victim starts to connect with the psychic harm that violence brings, it is common for feelings of doubt and ambivalence on how to face such situation. This growing perception is, on occasions, accompanied by feelings of guilt and attempted change to try to stop the violence, while other times there is a greater desire for autonomy and resistance to maintain the submissive role she plays in the relationship, which can lead to an increased risk of aggression. In this stage, it becomes essential to explore and analyse fear and risk. While conducting therapy, we healthcare professionals might, many a time, unconsciously lead the victim to rash decisions, sometimes made only to please us, that may increase the risk and/or abandonment of the current therapy.

It is fundamental to consider that, during intervention, it is common for breakups and reconciliations to happen. During this phase, it is key to transmit our desire to accompany the victim during the entirety of the process, trying to avoid the association between reconciliation and sense of failure (both in her own process as well 74

as in the therapeutic relation). It is essential at this point to be conscious about our counter-transferred feelings: anger, frustration, helplessness, abandonment, etc.

A specific element we must take into account when designing our intervention is the evaluation of previous traumatic episodes. Regarding women who have experienced previous traumatic events, it is common for the severity of psychopathological manifestations to increase, and, in many occasions, these can be included in the pathological portrait described in a previous section of this chapter: complex post-traumatic stress disorder. In these cases, treatment is usually more dilated in time and requires specific aspects such as the addressing of dissociative symptoms as well as of the dysregulated psychobiological activity [13, 116].

If given the situation in which one female patient has previously established safe bonds and had not experienced previous traumatic events, it is more likely for psychological consequences to be less severe and require shorter interventions. Nevertheless, as we have already described in the previous section, there are many other variables involved, such as frequency and intensity of violence, type of aggression, psychosocial vulnerability factors, previous history of mental disorders, etc. that are deeply involved in the kind of psychopathological consequences that may be displayed.

Moreover, we must consider that, in this violence emanated from a social context (patriarchate) that plays a primordial role, its effects reach both the individual and social identity of the victim. Thusly, it is of great help in their recovery to flag, identify and describe the patriarchal inequality of the social setting, the true breeding ground for IPV against women.

# 3.6.1 Impact of Working with IPV Victims on Professionals

We must firstly consider that those of us, professionals (both male and female), who work with these victims, are not granted any kind of special immunity against traumatic events. Exposure to this interpersonal violence may generate changes in our belief systems and prospects, not only on a personal level but also on the professional one, by questioning the theoretical models involved in our upbringing and education and that of our companions, even to the point of making us feel isolated in work groups. To work on these effects, we believe it to be fundamental the development of spaces for teaching, interprofessional encounter and supervision.

When it comes to teaching and supervision, we consider that working with a gender perspective must be necessarily accompanied by a deep analysis about the conceptual scheme that we therapists use for our work, as well as the elements of our own personal history involved in our relations. An analysis of the gender mandates involved in our socializing process and of our own traumatic experiences must also be considered. As we have said on other occasions, forgetting to take into account these biases may lead to variations in the issue perception and so to variations in the diagnosis, the therapeutic goals and the etiologic causes assigned to the symptoms [117].

As a conclusion, we wish to note that through all the process, it is essential to examine the power balance in the therapeutic environment, avoiding the establishment of power-submission dynamics.

#### References

- Naciones Unidas. Resolución sobre la eliminación de la violencia contra la mujer. Nueva York: Asamblea general naciones unidas; 1993.. Resolución de la asamblea general 48/104
- Organización Mundial de la Salud. Ginebra: c2017 [cited 17 Jul 2018]. http://www.who.int/ es/news-room/fact-sheets/detail/violence-against-women.
- 3. Campbell JC. Health consequences of intimate partner violence. Lancet. 2002;359(9314): 1331–6.
- 4. Ellsberg M, Jansen HA, Heise L, Watts CH, Garcia-Moreno C, WHO Multicountry Study on Women's Health and Domestic Violence against Women Study Team. Intimate partner violence and women's physical and mental health in the WHO multi-country study on women's health and domestic violence: an observational study. Lancet. 2008;371(9619):1165–72.
- Coker AL, Smith PH, Bethea L, King MR, McKeown RE. Physical health consequences of physical and psychological intimate partner violence. Arch Fam Med. 2000;9:451–7.
- 6. Mason R, O'Rinn SE. Co-occurring intimate partner violence, mental health, and substance abuse problems: a scoping review. Glob Health Action. 2014;7:24815.
- 7. Trevillion K, Oram S, Feder G, Howard LM. Experiences of domestic violence and mental disorders: a systematic review and meta-analysis. PLoS One. 2012;7(12):e51740.
- 8. Nathanson AM, Shorey RC, Tirone V, Rhatigan DL. The prevalence of mental health disorders in a community sample of female victims of intimate partner violence. Partner Abuse. 2012;3(1):59–75.
- Coker AL, Davis KE, Arias I, Desai S, Sanderson M, Brandt HM, Smith PH. Physical and mental health effects of intimate partner violence for men and women. Am J Prev Med. 2002;23(4):260–8.
- Stene LE, Dyb G, Jacobsen GW, Schei B. Psychotropic drug use among women exposed to intimate partner violence: a population-based study. Scand J Public Health. 2010;38(5 Suppl):88–95.
- 11. Herman JL. Trauma and recovery: the aftermath of violence. New York: Basic Books; 1992.
- 12. López Gironés M, Polo UC. Intervención en Mujeres Víctimas de Violencia de Género. Experiencia de Psicoterapia Grupal en un Centro de Salud Mental. Clínica Contemporánea. 2014;5(1):29–39.
- 13. Warshaw C, Brashler P, Gil J. Mental health consequences of intimate partner violence. In: Mitchell C, Anglin D, editors. Intimate partner violence: a health-based perspective. New York: Oxford University Press; 2009. p. 147–71.
- 14. Puente Martinez A, et al. Factores de riesgo asociados a la violencia sufrida por la mujer en la pareja: una revisión de meta-análisis y estudios recientes. Anales de psicología. 2016;32(1):295–306.
- 15. Alencar-Rodrigues R, Cantera L. Violencia de género en la pareja: Una revisión teórica. Psico. 2012;43(1):116–26.
- 16. Bronfenbrenner U. La ecología del desarrollo humano. Barcelona: Paidós; 1987.
- 17. Heise LL. Violence against women: an integrated, ecological framework. Violence Against Women. 1998;4(3):262–90.
- 18. Turinetto AQ, Vicente PC. Hombres maltratadores: Tratamiento psicológico de agresores. Madrid: Grupo 5 Acción y Gestión Social; 2008.
- Serrano Hernández C. Un estudio sobre los efectos de la violencia de género en el desarrollo psíquico de las mujeres (Tesis doctoral). Bilbao: Universidad de Deusto, Facultad de Psicología y Educación; 2012.

- 20. Eckhardt CI, Parrott DJ, Sprunger JG. Mechanisms of alcohol-facilitated intimate partner violence. Violence Against Women. 2015;21(8):939–57.
- 21. Foran HM, O'Leary KD. Alcohol and intimate partner v17iolence: a meta-analytic review. Clin Psychol Rev. 2008;28(7):1222–34.
- 22. Belski J. Child maltreatment: an ecological integration. Am Psychol. 1980;35(4):320-35.
- 23. Ellsberg M, Heise L. Investigando la violencia contra las mujeres: Una guía práctica para la investigación y acción. Managua: Organización Mundial de la Salud, PATH; 2007.
- Muñoz Sánchez S, San Vicente Cano A, Polo Usaola C et al. Crisis económica, desempleo y violencia de género. Un estudio en consultas de Salud Mental. e-Atopos. 2015 [cited 28 Aug 2018]. http://www.atopos.es/images/eatopos1/eatopos\_1\_4.pdf
- 25. Ferrer Pérez VA. Las creencias y actitudes sobre la violencia contra las mujeres en la pareja. Información Psicológica. 2010;99:36–52.
- European Commission. c2010 [cited 22 Aug 2018]. http://ec.europa.eu/commfrontof-fice/publicopinion/index.cfm/Survey/getSurveyDetail/search/domestic%20violence%20/surveyKy/816
- 27. Cobos Jimenez E. Apego, resiliencia y afrontamiento: un estudio con víctimas de violencia de género (Tesis doctoral). Madrid: Universidad Complutense de Madrid; 2016.
- 28. Escudero Nafs A, Polo Usaola C, López Gironés M, Aguilar RL. The coercive persuasion, an explanatory model of the stay of women in a situation of gender-based violence I: violence strategies. Revista de la asociación española de neuropsiquiatría. 2005;25(95):85–117.
- 29. Escudero Nafs A, Polo Usaola C, López Gironés M, Aguilar Redo L. La persuasión coercitiva, modelo explicativo del mantenimiento de las mujeres en una situación de violencia de genero: II: Las emociones y las estrategias de la violencia. Revista de la Asociación Española de Neuropsiquiatría. 2005;25(96):59–91.
- 30. Miller MS. No visible wounds. New York: Fawcett Books; 1995.
- 31. Romero Sabater I, Álvarez López R, Czalbowski S, Soria López TN, Villota Alonso M. Guía de intervención en casos de violencia de género. Madrid: Síntesis; 2015.
- 32. Delgado C. Aspectos cognitivos y emocionales de la violencia de género. In: Gallardo A, Figueruelo A, del Pozo M, editors. Violencia de género e igualdad: una cuestión de derechos humanos. Granada: Comare; 2013. p. 65–79.
- Armas Ruiz V. Violencia de pareja: claves para entender la permanencia de las víctimas con sus agresores (Tesis para la obtención de Grado). Madrid: Universidad Autónoma de Madrid; 2017.
- Loewenstein RJ, Putnam FW. Dissociative disorders. In: Sadock BJ, Sadock VA, editors. Kaplan and Sadock's comprehensive textbook of psychiatry. 8th ed. Philadelphia: Lippincott Williams & Wilkin; 2005.
- 35. Rodríguez Carballeira A. El lavado de cerebro. Psicología de la persuasión coercitiva. Barcelona: Boixareu Universitaria; 1992.
- 36. Boulette TS, Andersen SM. Mind control and the battering of women. Community Ment Health J. 1985;21(2):109–18.
- 37. Escudero Nafs A. Factores que influyen en la prolongación de una situación de maltrato a la mujer: un análisis cualitativo (Tesis doctoral). Madrid: Universidad Autónoma de Madrid; 2004.
- 38. Rizo Martínez LE. El síndrome de Estocolmo: una revisión sistemática. Clínica y Salud. 2018;29(2):81–8.
- 39. Graham DL, Rawlings EI, Rigsby RK. Loving to survive: sexual terror, men's violence, and women's lives. New York: New York University Press; 1994.
- 40. Wallace P. How can she still love him? Domestic violence and the Stockholm syndrome. Community Pract. 2007;80(10):32–5.
- 41. Carver JM. Love and Stockholm syndrome: the mystery of loving an abuser. Mhmatters 2009. [Cited Aug 2018]. https://mental-health-matters.com/love-and-stockholm-syndrome-the-mystery-of-loving-an-abuser/.
- 42. Gómez AM. Síndrome de adaptación paradójica a la violencia doméstica: una propuesta teórica. Clínica y salud. 2001;12(1):371–97.

- 43. Ordóñez B. ¿ Callar o gritar? El dilema de la mujer maltratada: ¡ un clamor en el silencio! Revista Científica Teorías. Enfoques y Aplicaciones en las Ciencias Sociales. 2012;5(10):93–105.
- 44. Vázquez MA, et al. El perdón y la reincidencia para volver con la expareja. Int J Develop Educat Psychol. 2017;2(1):363–71.
- 45. Selye H. The stress of life. New York: McGraw-Hill; 1952.
- 46. Seligman MEP. Learned helplessness. San Francisco: Freeman; 1975.
- 47. O'Leary KD, Barling J, Arias I, Rosenbaum A, Malone J, Tyree A. Prevalence and stability of physical aggression between spouses: a longitudinal analysis. J Consult Clin Psychol. 1989;57(2):263–8.
- 48. Walker L. The battered woman. New York: Harper & Row; 1979.
- 49. Polo Usaola C, López Gironés M, Olivares Zarco D, Escudero Nafs A, Rodríguez Vega B, Fernández Liria A. Autoinculpación en las mujeres que sufren maltrato por parte de su pareja. Revista de la asociación española de neuropsiquiatría. 2006;26(97):71–86.
- 50. Hirigoyen MF. Mujeres maltratadas: los mecanismos de la violencia en Pareja. Barcelona: Paidós Ibérica; 2006.
- 51. Walker LE. Descripciones de violencia y el ciclo de la violencia. In: Walker LEA, editor. El síndrome de la mujer maltratada. Bilbao: Desclée de Brouwer; 2012.
- Ludermir AB, Schraiber LB, D'Oliveira AF, França-Junior I, Jansen HA. Violence against women by their intimate partner and common mental disorders. Soc Sci Med. 2008;66(4):1008–18.
- 53. Rees S, Silove D, Chey T, Ivancic L, Steel Z, Creamer M, et al. Lifetime prevalence of gender-based violence in women and its relationship with mental disorders and psychosocial function. JAMA. 2011;306(5):513–21.
- 54. World Health Organization. Gender disparities in mental health. Geneva: WHO; 2013.
- 55. Rees S, Steel Z, Creamer M, Teeson M, Bryant R, McFarlane AC, et al. Onset of common mental disorders and suicidal behavior following women's first exposure to gender based violence: a retrospective, population-based study. BMC Psychiatry. 2014;14:312.
- Lagdon S, Armour C, Stringer M. Adult experience of mental health outcomes as a result of intimate partner violence victimisation: a systematic review. Eur J Psychotraumatol. 2014;12:5.
- 57. Blasco-Ros C, Sánchez-Lorente S, Martínez M. Recovery from depressive symptoms, state anxiety and post-traumatic stress disorder in women exposed to physical and psychological, but not to psychological intimate partner violence alone: a longitudinal study. BMC Psychiatry. 2010;10:98.
- 58. Stöckl H, Penhale B. Intimate partner violence and its association with physical and mental health symptoms among older women in Germany. J Interpers Violence. 2015;30(17):3089–111.
- 59. Goldman HH, Gattozzi AA, Taube CA. Defining and counting the chronically mentally ill. Hosp Community Psychiatry. 1981;32(1):21–7.
- 60. González-Cases J, Polo Usaola C, González Aguado F, López Gironés M, Rullas Trincado M, Fernández LA. Prevalence and characteristics of intimate partner violence against women with severe mental illness: a prevalence study in Spain. Community Ment Health J. 2014;50(7):841–7.
- 61. Laghchioua S, Grube M. Intimate partner violence in a group of severe mentally ill women. Psychiatr Prax. 2015;42(3):158–61.
- Khalifeh H, Oram S, Trevillion K, Johnson S, Howard LM. Recent intimate partner violence among people with chronic mental illness: findings from a national cross-sectional survey. Br J Psychiatry. 2015;207(3):207–12.
- 63. Chandra PS, Deepthivarma S, Carey MP, Carey KB, Shalinianant MP. A cry from the darkness: women with severe mental illness in India reveal their experiences with sexual coercion. Psychiatry. 2003;66(4):323–34.
- 64. Moskowitz A, Schäfer I, Dorahy MJ. Psicosis, trauma y disociación. Madrid: Fundación para la investigación y el tratamiento de la esquizofrenia y otras psicosis; 2011.

- 65. Boyda D, McFeeters D, Shevlin M. Intimate partner violence, sexual abuse, and the mediating role of loneliness on psychosis. Psychosis. 2015;7(1):1–13.
- 66. Friedman SH, Loue S. Incidence and prevalence of intimate partner violence by and against women with severe mental illness. J Womens Health (Larchmt). 2007;16(4):471–80.
- 67. Murray CE, Crowe A, Brinkley J. The stigma surrounding intimate partner violence: a cluster analysis study. Partner Abuse. 2015;6(3):320–36.
- 68. Kuehner C. Why is depression more common among women than among men? Lancet Psychiatry. 2017;4(2):146–58.
- World Health Organization. Global and regional estimates of violence against women. Prevalence and health effects of intimate partner violence and non-partner sexual violence. Geneva: WHO; 2013.
- Beydoun HA, Beydoun MA, Kaufman JS, Lo B, Zonderman AB. Intimate partner violence against adult women and its association with major depressive disorder, depressive symptoms and postpartum depression: a systematic review and meta-analysis. Soc Sci Med. 2012;75(6):959–75.
- Kothari CL, Liepman MR, Shama Tareen R, Florian P, Charoth RM, Haas SS, et al. Intimate partner violence associated with postpartum depression, regardless of socioeconomic status. Matern Child Health J. 2016;20(6):1237–46.
- 72. Devries KM, Mak JY, Bacchus LJ, Child JC, Falder G, Petzold M, et al. Intimate partner violence and incident depressive symptoms and suicide attempts: a systematic review of longitudinal studies. PLoS Med. 2013;10(5):e1001439.
- 73. Stein MB, Kennedy C. Major depressive and post-traumatic stress disorder comorbidity in female victims of intimate partner violence. J Affect Disord. 2001;66(2–3):133–8.
- 74. Solanke BL. Does exposure to interparental violence increase women's risk of intimate partner violence? Evidence from Nigeria demographic and health Surrey. BMC Int Health Hum Rights. 2018;18(1):1.
- Capaldi DM, Knoble NB, Shortt JW, Kim HK. A systematic review of risk factors for intimate partner violence. Partner Abuse. 2012;3(2):231–80.
- Johnson WL, Giordano PC, Longmore MA, Manning WD. Intimate partner violence and depressive symptoms during adolescence and young adulthood. J Health Soc Behav. 2014;55(1):39–55.
- 77. Lövestad S, Löve J, Vaez M, Krantz G. Prevalence of intimate partner violence and its association with symptoms of depression; a cross-sectional study based on a female population sample in Sweden. BMC Public Health. 2017;17(1):335.
- 78. Mechanic MB, Weaver TL, Resick PA. Mental health consequences of intimate partner abuse: a multidimensional assessment of four different forms of abuse. Violence Against Women. 2008;14(6):634–54.
- McLaughlin J, O'Carroll RE, O'Connor RC. Intimate partner abuse and suicidality: a systematic review. Clin Psychol Rev. 2012;32(8):677–89.
- 80. Devries K, Watts C, Yoshihama M, Kiss L, Schraiber LB, Deyessa N, et al. Violence against women is strongly associated with suicide attempts: evidence from the WHO multicountry study on women's health and domestic violence against women. Soc Sci Med. 2011;73(1):79–86.
- 81. Lorente Acosta M, Sánchez de Lara Sorzano C, Nared Camblor C. Suicidio y Violencia de Género. Madrid: Ministerio de Sanidad y Consumo; 2007.
- 82. Stark E, Flitcraft A. Killing the beast within: woman battering and female suicidality. Int J Health Serv. 1995;25(1):43–64.
- 83. American Psychiatric Association. Diagnostic and statistical manual of mental disorders: DSM-IV-TR. Washington, DC: American Psychiatric Association; 2000.
- 84. Echeburúa E, de Corral P, Zubizarreta I, Sarasua B. Psychological treatment of chronic posttraumatic stress disorder in victims of sexual aggression. Behav Modif. 1997;21(4):433–56.
- 85. Golding JM. Intimate partner violence as a risk factor for mental health disorders: a meta-analysis. J Fam Violence. 1999;14:99–132.

- 86. Woods SJ. Prevalence and patterns of posttraumatic stress disorder in abused and postabused women. Issues Ment Health Nurs. 2000:21(3):309–24.
- 87. Woods SJ, Hall RJ, Campbell JC, Angott DM. Physical health and posttraumatic stress disorder symptoms in women experiencing intimate partner violence. J Midwifery Womens Health. 2008;53(6):538–46.
- 88. Kemp A, Rawlings EI, Green BL. Post-traumatic stress disorder (PTSD) in battered women: a shelter sample. J Trauma Stress. 1991;4:137–48.
- 89. DeJonghe ES, Bogat GA, Levendosky AA, von Eye A. Women survivors of intimate partner violence and post-traumatic stress disorder: prediction and prevention. J Postgrad Med. 2008;54(4):294–300.
- 90. Carleton RN, Mulvogue MK, Duranceau S. PTSD personality subtypes in women exposed to intimate-partner violence. Psychol Trauma. 2015;7(2):154–61.
- 91. Weiss NH, Dixon-Gordon KL, Duke AA, Sullivan TP. The underlying role of posttraumatic stress disorder symptoms in the association between intimate partner violence and deliberate self-harm among African-American women. Compr Psychiatry. 2015;59:8–16.
- 92. Pico-Alfonso MA. Psychological intimate partner violence: the major predictor of posttraumatic stress disorder in abused women. Neurosci Biobehav Rev. 2005;29(1):181–93.
- Asensi Pérez LF, Araña Suárez M. TEPT complejo en violencia de género. Interpsiquis. 2006.
- 94. van der Kolk BA, Roth S, Pelcovitz D, Sunday S, Spinazzola J. Disorders of extreme stress: the empirical foundation of a complex adaptation to trauma. J Trauma Stress. 2005;18(5):389–99.
- 95. Classen CC, Pain C, Field NP, Woods P. Posttraumatic personality disorder: a reformulation of complex posttraumatic stress disorder and borderline personality disorder. Psychiatr Clin North Am. 2006;29(1):87–112.
- Giourou E, Skokou M, Andrew SP, Alexopoulou K, Gourzis P, Jelastopulu E. Complex posttraumatic stress disorder: the need to consolidate a distinct clinical syndrome or to reevaluate features of psychiatric disorders following interpersonal trauma? World J Psychiatry. 2018;8(1):12–9.
- 97. International Classification of Diseases 11th Revision. 2018 (citado el 19/07/18). https://icd.
- 98. El-Bassel N, Gilbert L, Schilling R, Wada T. Drug abuse and partner violence among women in methadone treatment. J Fam Violence. 2000;15(3):209–28.
- 99. El-Bassel N, Gilbert L, Frye V, Wu E, Go H, Hill J, et al. Physical and sexual intimate partner violence among women in methadone maintenance treatment. Psychol Addict Behav. 2004;18(2):180–3.
- 100. El-Bassel N, Gilbert L, Wu E, Go H, Hill J. Relationship between drug abuse and intimate partner violence: a longitudinal study among women receiving methadone. Am J Public Health. 2005;95(3):465–70.
- 101. Jaquier V, Flanagan JC, Sullivan TP. Anxiety and posttraumatic stress symptoms pathways to substance use problems among community women experiencing intimate partner violence. Anxiety Stress Coping. 2015;28(4):445–55.
- 102. Lipsky S, Caetano R, Field CA, Larkin GL. Is there a relationship between victim and partner alcohol use during an intimate partner violence event? Findings from an urban emergency department study of abused women. J Stud Alcohol. 2005;66(3):407–12.
- Webermann AR, Brand BL, Kumar SA. Intimate partner violence among patients with dissociative disorders. J Interpers Violence. 2017;1:886260517746943.
- 104. Fleming CJ, Resick PA. Predicting three types of dissociation in female survivors of intimate partner violence. J Trauma Dissociation. 2016;17(3):267–85.
- 105. Webermann AR, Brand BL, Chasson GS. Childhood maltreatment and intimate partner violence in dissociative disorder patients. Eur J Psychotraumatol. 2014;5:24568.
- 106. Crofford LJ. Violence, stress, and somatic syndromes. Trauma Violence Abuse. 2007;8(3):299–313.
- 107. Samelius L, Wijma B, Wingren G, Wijma K. Somatization in abused women. J Womens Health (Larchmt). 2007;16(6):909–18.

- 108. Cleary BS, Keniston A, Havranek EP, Albert RK. Intimate partner violence in women hospitalized on an internal medicine service: prevalence and relationship to responses to the review of systems. J Hosp Med. 2008;3(4):299–307.
- 109. Lown EA, Vega WA. Intimate partner violence and health: self-assessed health, chronic health, and somatic symptoms among Mexican American women. Psychosom Med. 2001;63(3):352–60.
- 110. Wong SP, Chang JC. Altered eating behaviors in female victims of intimate partner violence. J Interpers Violence. 2016;31(20):3490–505.
- 111. Bundock L, Howard LM, Trevillion K, Malcolm E, Feder G, Oram S. Prevalence and risk of experiences of intimate partner violence among people with eating disorders: a systematic review. J Psychiatr Res. 2013;47(9):1134–42.
- 112. Schirk DK, Lehman EB, Perry AN, Orstein RM, McCall-Hosenfeld JS. The impact of social support on the risk of eating disorders in women exposed to intimate partner violence. Int J Women's Health. 2015;7:919–31.
- 113. Walker L, Carrio C, Gill K, et al. Programa de empoderamiento de terapia para supervivientes (STEP). In: Walker LEA, editor. El síndrome de la mujer maltratada. Bilbao: Desclée de Brouwer; 2012.
- 114. Levinton N. El superyo femenino: La moral en las mujeres. Madrid: Biblioteca Nueva; 2000.
- 115. Polo Usaola C. Violencia de género: Detección e intervención en salud mental comunitaria. In: Desviat M, Moreno A, editors. Acciones de Salud Mental en la Comunidad. Madrid: Asociación Española de Neuropsiquiatría; 2012. p. 672–8.
- 116. Nieto Martínez I, López Casares MC. Abordaje integral de la clínica del trauma complejo. Clínica Contemporánea. 2016;7(2):87–104.
- 117. Polo Usaola C. Perspectiva de género en terapia de familia. In: Moreno Fernández A, editor. Manual de terapia sistémica. Principios y herramientas de intervención. Madrid: Descleé de Brower; 2014.

# Sexual Violence: Effects on Women's Identity and Mental Health

4

Adela San Vicente Cano, Marta Niño-Laina, Sandra Muñoz Sánchez, and Cristina Polo-Usaola

> If a man happens to meet a virgin who is not pledged to be married and rapes her and they are discovered, he shall pay her father fifty shekels of silver. He must marry the young woman, for he has violated her. He can never divorce her as long as he lives.

> > Old Testament. Deuteronomy 22:28–29

#### **Abstract**

Since time immemorial, sexual violence against women has been denied and silenced in all its aspects in a context of women's subordination to men. Throughout this chapter, we will try to examine the complexity of this universal phenomenon from a feminist perspective. Beginning with a historical approach to the roots of sexual violence, we will review the different environments in which this specific type of violence may occur, and the effects that may be unleashed on these women's mental health will be explained, raising awareness of the gender bias that intervene in the very definition of mental disorders and their causes. Finally, part of this chapter will focus on possible treatment interventions that may be carried out on the victims and the psychological consequences on therapists working with sexual violence survivors.

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#### 4.1 The Roots of Sexual Violence

# 4.1.1 Sexual Violence Throughout History

Different sources and particularly those based on a feminist analysis have revealed that sexual violence against women is a historical phenomenon [1, 2]. Its existence is of a universal nature and dates back to ancient times, as documented in classical works or numerous archaeological remains [3, 4]. Many of its manifestations have since then disappeared, others have changed and some remain intact to this day. The same goes for the way in which this type of violence has been conceived and the discourses that have progressively emerged. The experience of women has been denied and silenced in all its aspects in a context of female subordination to men. Thus some female historians who have studied women's history conclude that their life has been mainly influenced by their gender and defined by their relationship with men for many centuries [5].

Although the damage that sexual violence causes in victims is currently acknowledged, this was not the case for most of human history. When looking at rape, Georges Vigarello [2] states that the past prejudice against women hinders the possibility of acknowledging their fear and subjugation. It is precisely because prejudices change that it is worth taking into account the history of rape where transformation shall be accompanied by changes to the systems of domination upon women [2]. Thus legislation will change and, consequently, the notion of what constitutes or not a criminal offence.

It is certain that with greater gender equality, the tolerance to violence decreases; however, in the case of sexual violence, we witness a phenomenon that has been given little consideration and visibility in recent years, both by the feminist movement and by the academic community when compared with the fight against other types of gender violence, especially that restricted to the couple relationship [3, 6].

Focusing on the Western cultural context, Ana María Fernández [7] analyses how certain aspects traditionally associated with sex are, in fact, sociohistorical structures. Based on the work by the historian Paul Veyne [8], she finds in the Christianization of the Roman Empire "the passage from a bisexuality of domination to a heterosexuality of reproduction". In the bisexuality of domination of ancient societies, both the Greek and the Roman obtained their sexual pleasure regardless of the gender that people had. They morally judged the fact that someone of a social superior status would submit to someone of a lower status such as a freeman who submitted to a slave. This situation refers us to beginnings of the classic distinction between passivity and activity. Activity in sexuality will be linked to status and freedom, whilst passivity will be linked to submission to others. In the heterosexuality of reproduction that Christianity implements, this activity-passivity duality will be organized as follows: woman-passivity and man-activity, considering these gender positions as unmodifiable, and losing sight of its relationship with the distribution of power. This structure will be consolidated during the Middle Ages with the dominance of the Catholic Church Domain and the foundations of Christianity that will place emphasis on the institution of marriage and heterosexuality, adopting a whole

sexual morality [7]. In this idea of marriage, a married woman cannot refuse having sex because it is her obligation. This will be reinforced and legitimized at a legal level, as shown by the fact that the sentences for rape were scaled according to the marital status of women [3].

From an exhaustive analysis, Georges Vigarello [2] warns that during the Old Regime, the consideration of the seriousness of rape varied according to different situations: it was pardoned in war; it became more visible if there was physical violence or other aggressions; it would be more serious if the higher the social status or the victim was and the lower the social class of the aggressor; prostitutes were not considered victims; and the offence was greater if the woman was a virgin. The shadow of doubt always fell on the victim and her honesty, whilst the offender would hardly be conscious of the violence he perpetrated. The very act was a disgrace for the victim, and this would reduce her legitimacy when accusing, since she would find she was accusing herself. This way she would try to hide the violence suffered.

All this time women were not considered as individual victims per se but as part of the family whose honour was damaged [1]. With the arrival of modern times, women will gradually become a subject matter of rights to the same extent than men, which will make it possible for rape to be acknowledged as a crime against women and not an offence against men for damaging their property [4]. At the end of the eighteenth century, there is more emphasis placed on physical damage, but it will not be until the nineteenth century when sexual violence begins to be considered in terms of consent and not only limited to the use of force [3]. Nevertheless, with the idea of consent, the responsibility of the victim was reinforced, which from this moment will have to proof whether or not there was resistance.

Between the eighteenth and nineteenth centuries, following Foucault's formulations [9], a technology of sex is born, where medical knowledge will be responsible for defining the rules to which sexuality must be allocated, forcing the discourse of reason on morality. It emerges then what Foucault describes as the process of hysterization of women, who qualifies or disqualifies women's bodies [9]. The patriarchal ideology from the previous centuries will be sustained by various authors from the science and philosophy communities. Thus, for example, at the end of the nineteenth century, the figure of the rapist becomes a category described by psychiatry [1].

Between the end of the nineteenth century and throughout the twentieth century with all various feminist movements, sexual violence will be perceived as an attack on the sexual identity of women, acknowledging the mental sequelae it generates. There will also be important advances in the sexual freedom of women [10].

In the 1970s, the feminist movement associated sexual assault with patriarchy. In 1976, the International Court of Crimes Against Women was held in Brussels, attended by more than 2000 women from 40 countries. Some European feminists considered sexual violence as a "terrorist attack" through which fear and subordination are generated on all women [5]. Similarly, the fight against sexual violence continued in the 1980s, where reports increased considerably, whilst other types of sexual violence such as child sexual abuse or sexual harassment were added to rape [3].

# 4.1.2 Sexual Violence, Patriarchy and Desire

As we have seen in the previous section, sexual violence has its roots in the cultural, political and social contexts which have been taking place, which contradicts the discourse widely spread throughout history, of being a natural phenomenon, bound to sexual instinct and thus impossible to change. Similarly, the difference found in prevalence figures from one place to another reveals that it is not a fixed phenomenon and that it can therefore be avoided and prevented [11]. Hence, for instance, in places where the prevalence of sexual violence is higher, there are also higher rates for other types of violence [6].

The magnitude of the issue also makes it possible to prove that it is not an isolated problem. On the other hand, there is no evidence of the causal relationship between sexual violence and the psychopathology of the offenders [1, 4].

According to Ana María Fernández, in order for the different forms of violence to exist, it is necessary for a society to have discriminated against certain groups (women, children, the elderly) [7]. From this perspective the domination of men over women would also be at the core of sexual violence.

In feminist conceptualizations, there are two important aspects when considering the causes of sexual violence: assault and sex [1]. Depending on the source, there is more emphasis placed on one or another factor, although feminism points out a certain tendency towards the desexualisation of rape in an effort to stress the violence and power that the act entails. Detractors to this position challenge whether rape would be an act comparable to any other types of violence, pointing out certain features such as the feeling of shame experienced by the victim when telling about the act or the question of why men turn to rape when they can use other forms of violence that also allow them to hold on to power [1].

The anthropologist Rita Segato [4] looks into the phenomenon of rape by listening to numerous testimonies of prisoners. According to her, this attack does not belong to the sexual sphere, but it is an instrument of the power distributed according to gender. The key is in the social transition from a status regime to a contractual one amongst peers. In the former, women are conceived as men's assets, whilst in the latter both men and women are considered citizens of equal right. According to Rita Segato, in the case of rape, the status regime is imposed on the contractual one. Men take women's bodies and rape them with three goals: to punish her for being out of her place, as a way to attack another man or as a sign of masculinity to secure a place amongst other men. The author bases her thesis in several remarks such as the fact that gang rape is as prevalent as individual rape, the rise in war rape cases, or the fact that men themselves are not aware that they are committing a crime. Rita Segato states that rape is, for men, a mandate: "the subject is not raping because he has power or to show that he has got power but because he must do it" [4].

From a different point of view, MacKinnon [12] considers vital the role of gender against violence, not only in rape but also in harassment, pornography and abuse. She keeps in mind the fact that rape and its features have traditionally been defined in terms of male sexuality, focusing on penetration and leaving out other points.

She also argues that it is precisely in the women's sexuality and pleasure where damage is caused. She claims that this point of view means acknowledging sexuality in itself as a power structure, as well as visualizing and recognizing any violence coming from normal sex.

The structural level of sexual violence is also noted in the amount of common features found in any type of violence and nonviolent sex. That is why it is not sufficient to study what happens when violence is more or less explicit, but in everyday sex, in private, and in the way in which each gender arranges their desire. Although we are focusing on adult sexual assault outside the couple, sexual violence committed by partners is even more prevalent [6].

When studying the aetiology of sexual violence, the role of misconceptions has been widely described in supporting and justifying sexual violence and conveying the patriarchal ideology as something natural and to be expected [1, 3, 13]. Behind many sexual violence phrases we get to hear on a daily basis, such as "women say no when they want to say yes", "she provoked him", "she played uptight", "false accusations"; there are myths like thinking that women want and/or enjoy being raped or the idea that men are not really responsible. Those misconceptions are present across all social statuses, in the law and in how this is applied.

In this direction, a paper discussing the factors that influence the social perception of sexual violence [13] states that, in general, the more private the relationship victim-aggressor is, the greater the guilt placed upon the victim when she shows resistance following a previous encounter or if she does not show any resistance. According to the same study, the victim's reputation, her past sexual behaviour, race, physical attractiveness, clothing, alcohol consumption, etc. also plays a role when blaming the victim [13]. We can sense a whole series of beliefs in favouring the justification of sexual violence behind all this.

The feminist vision has claimed how female pleasure has been not allowed and poorly acknowledged. Historically, women behaved sexually following the physical, psychological and mental demands of men [10], and the women's poorly recognized desire is built subordinated to men's desire [14]. They must fit their sexuality into the model of male sexuality. In the words of Raquel Osborne, "an androcentric model of sexuality", oriented towards penetration, that quantity prevails over quality, where male desire is defined as uncontrollable and where women have no access to pleasure or if female pleasure is acknowledged, this is arbitrated the male's presumed ability. From here, women remain placed in a passive role where they are not allowed to act according to their own initiative [1].

The development of subjectivity for men and women has been generated within a framework of asymmetric power relationships. In order for women to act according to their options and bring their desire to the table, they must claim their own subjectivity [14], and that includes their way of living and enjoying sexuality. Beatriz Gimeno [15] proposes that men should be educated to perceive the sexual discomfort of their partner, with the idea that their partner's sexual satisfaction is in the same place as their own, whilst women should learn to express their desire and sexual preferences and dislikes [15].

# 4.2 Types of Sexual Violence and Their Context

In this section we will review the different types of sexual violence and the context where it occurs.

The World Health Organization (WHO) defines sexual violence as [16]:

Any sexual act, attempt to obtain a sexual act, unwanted sexual comments or advances, or acts to traffic, or otherwise directed, against a person's sexuality using coercion, by any person regardless of their relationship to the victim, in any setting, including but not limited to home and work.

Based on this definition, a wide range of sexually violent acts can take place in different circumstances and settings, although there are three main types of sexual violence:

#### 4.2.1 Sexual Harassment

In the case of sexual harassment, there is a status of superiority, authority or power, either by age, gender or working, social, family or economic position, which will be used to chase, harass or coerce physically or verbally another person for non-consensual sexual reasons. If such behaviour is not tolerated, it may result in threats and punishments for the victim.

European organizations have been addressing this issue. The European Union, in 2002, approved a common definition of sexual harassment in the European Parliament Plenary [17]:

The situation in which there is any form of unwanted verbal, non-verbal or physical conduct of a sexual nature occurs, with the purpose or effect of violating the dignity of a person, in particular when creating an intimidating, hostile, degrading, humiliating or offensive environment.

#### 4.2.2 Sexual Abuse

In the case of sexual abuse, the aggressor starts from a position of strength compared to the victim, thus using the victim's vulnerability for their own sexual advantage, be it the loss of consciousness, being under the influence of intoxicating agents, drugs and/or alcohol, an intellectual disability or a mental illness. In this type of sexual violence, the victim will be incapable of giving valid consent, since his or her intellectual and/or volitional capacities will be impaired due to his or her psychic state. The type of sexual abuses would range from cuddling, touching or explicit verbal proposals, to vaginal, rectal or oral penetration of the virile member or else objects vaginally or rectally [18].

#### 4.2.3 Sexual Assault

Sexual assault would be defined nowadays as the coercion of sexual freedom in a person by using violence or intimidation. Although the term "rape" has been removed from legal terminology, supposedly in order to minimize the victimization of the assaulted woman, it would be in the context of sexual assault where the commonly known rape would occur. Explicit violence and/or intimidation are essential requirements for sexual assault, making women feel fear, anxiety or under threat by the aggressor. Coercion can be exerted with varying degrees of force, psychological intimidation, extortion or threats [18].

As in sexual abuse, vaginal, rectal or oral penetration by a penis or an object may occur, although that wouldn't be an essential requirement to regard a behaviour as sexual assault.

## 4.2.4 Other Sexual Violence Scenarios

Although the above-mentioned types of sexual violence are the main ones found in the published literature, there are many other forms of violence that cannot be ignored, and they must be remembered so that they are not forgotten.

Sexual exploitation (trafficking the bodies of women for economic remuneration from third parties for sexual services provided by the victims against their will) is one of the most serious forms of sexual violence and probably the less visible one, even to this day.

Other scenarios that are still sexual violence but which are taken into account to less extent could be violence against women in the context of an armed conflict, sexual slavery or forced prostitution, pregnancy or forced abortion, refusal of contraception use (mainly due to religious beliefs or cults), torture or forced marriage. Some of these types of violence will be addressed throughout this chapter.

# 4.2.5 Sexual Violence in Childhood, Adolescence and in the Couple

#### 4.2.5.1 Sexual Abuse in Childhood

Childhood is a period of development, not only physically but also psychologically and emotionally for the individual, and thus it is a particularly sensitive and vulnerable period. We understand that there is not an appropriate sexual relationship between an adult and a child that is not abusive in itself, the power difference being evident [19]. We are referring to sexual abuse as there is an abusive use of the child's sexuality since there is no appropriate sexual relationship between them. The adult is held solely accountable for such an act. In other words, it is presumed that children are not capable of consenting to a sexual relationship with an adult, since they do not have enough power to refuse it, and quite often they are not aware of what they would be consenting to [20].

In terms of gender gap, according to the UNICEF, sexual violence against girls is prominently more common than against boys, with one in ten girls being ever a victim of sexual violence globally. The majority of them were victims for the first time between 15 and 19 years old, although data can vary greatly from one country to another [21]. At the same time, according to the Council of Europe, approximately one in five children in Europe is a victim of some type of sexual violence. This study includes child sexual violence in many forms: sexual abuse within the family or its trusted circle, child pornography and prostitution, corruption, online requests and sexual abuse by peers [22]. In the healthcare sector, a study carried out on a sample of 477 women, who attended two different mental health centres in Madrid, found that 13.2% had a previous history of sexual abuse in childhood [23]. The authors used the Finkelhor child sexual abuse screening survey [20] which includes physical abuse.

In the majority of cases, abusers are men, although not exclusively [24]. This gender gap in child sexual abuse could be explained in terms of today's society patriarchal ideology. Barudy states the following [19]:

From an early age, children are used to considering the submission of children and women to men as normal. [...] The patriarchal concept translates into the clinical fact that most child abusers are men, nearly all of them deeply convinced of their rights over other family members. The victim, in the majority of cases a girl, socialized with this same ideology, can hardly rebel against and/or report the acts of the abuser.

# 4.2.5.2 Child Sexual Abuse Inside and Outside the Family

In terms of Child Sexual Abuse (CSA), we can separate the abuse inside the family, when the abuser is someone with whom the victim shares a family bond, from abuse outside the family, when there is no such bond between them, whether the aggressor is known or not to the family. Both entail very different mental health effects that we will discuss later on.

In CSA inside the family, besides the violence of the act in itself, the bond with the abuser is broken, and possibly the trust in the family as a safe place is lost. Furthermore, in this type of abuse, it is more difficult for the victim to see it as a violent act or an abuse of power exerted by the adult [19].

It is estimated that in Spain, for instance, 90% of CSA takes place within the family or by someone close to the family [24].

In CSA outside the family, family is usually an important protective factor. How relatives react when the abuse is reported can ease the traumatic effect on the victim (feeling that they believe her/him), as well as the subsequent actions aimed at protecting the child (speed of proceedings, implementation of legal or informal measures of protection and amendment...).

## 4.2.5.3 Sexual Violence in Adolescents and the Use of Social Media

Adolescence is a time of great changes not only in the nature of relationships with others but also on a personal level: physically, psychologically and sexually. Social development is greater than in other stages, and at the same time peer, love and sexual relationships start to be defined.

At this stage, gender stereotypes are more present, which, together with the lack of experience in couple relationships, and the idealization of these relationships conveyed by the media, make adolescents more vulnerable to gender violence in couple relationships (and consequent risk of sexual violence) and sexual contacts outside of couple. In a study conducted with adolescents in Spain, it was observed that almost 15% had suffered some type of sexual violence in their lives and 10% within that last year, being girls, in both cases, the group that suffered them mostly [25].

At the same time, the appearance of social media has changed the way we communicate to others, both in adolescence and in adulthood.

Social media is marked by the same stereotypes and behaviours and the same violence, in its different degrees of intensity, as other areas, since it is a reflection of our society. But there are two features that differentiate them: what is published in them has a global audience, and there is no space-time truce: violence can occur anywhere and at any time [26].

Here sexual violence is regarded as *revenge porn* (*vengeful porn*, publishing a photo or video following the breakup of a couple), *sextortion* (online blackmailing to get more provocative photos or with more explicit sexual content) or *grooming* (adults who contact children and win their trust to get sexual satisfaction through a virtual relationship) [26].

## 4.2.5.4 Sexual Violence in the Couple

Sexual violence in a couple or ex-couple relationship takes place in a context of power and control over women, and it is often neglected despite its high prevalence according to studies carried out across different countries [27]. In a study conducted several decades ago, Finkelhor found that 10% and 14% of women had experienced marital rape, and it is considered that the percentage is actually much higher, since many women do not report it, and others never tell anyone [28]. Approximately 45% of the women in the study sample had suffered rape along physical violence.

According to a survey conducted by the European Union Agency for Fundamental Rights between 2010 and 2012, an estimated 3.7 million women in the EU were victims of sexual violence in the 12 months prior to the survey. This means 2% of women between 18 and 74 years of age in the EU. In that same study, it was found that sexual violence exercised by the partner or ex-partner in the last 12 months was 1.5% [29]. From a healthcare perspective, a recent study conducted in Madrid by our working group found that in a sample of 161 women treated in a mental health centre, 17.6% suffered sexual violence by their partner or ex-partner throughout their lives and 9.6% suffered it in the last year [30].

According to Velázquez, rape within the couple relationship has a greater impact than when carried out by a stranger. The fact that the aggressor is the partner calls into question that this was rape and generally puts the focus on the interpretation of female behaviours. It is common to find in the public imagination the idea that women who are abused by their partners have sexual problems. This patriarchal mechanism minimizes the responsibility of the aggressor (and focuses on women), being able to reach the minimization or even the denial of the violation [31]. In addition, women continue to live with the aggressor [32].

"Marital duty" has been socially installed for centuries, influencing situations of abuse in several ways by not letting the individual say or hear "no", as to allow a change the perception of a violence situation or understanding that there is such violence. In forced sex it is the woman who is blamed for not being sexually available each time the husband demands it [31]. That is why, in the words of Antonio Escudero, "violation within the couple represents an act of possession, and humiliation. It is the most violent physical contact legitimized by the couple relationship" [32].

#### 4.2.6 Prostitution

The consideration of prostitution as a type of sexual violence (as well as the regulation of prostitution itself) is a controversial issue that generates a great social debate. Those in favour of not regulating prostitution would deny the possibility of valid consent within such practice, claiming that prostitution is equal to violence against women, sustained in a framework of structural inequality. This type of violence could be seen as symbolic violence, but informally, associations are often made to label prostitution as a type of material, direct, physical or psychological violence [33]. On the contrary, certain sex workers in favour of its regulation and similar groups insist on the need to differentiate between trafficking and prostitution, and they consider that prostitution, when exercised freely, is not sexual violence. They place special emphasis on asserting the voice of women who engage in prostitution and on avoiding making victim-aggressor dichotomies.

The analysis of complexity of this discussion includes the definition of sexual abuse itself. Some approaches consider that if we stick to the desire and not the "consent" as a basis to establish whether there is assault or abuse, prostitutes would not desire the sexual relationship but would need and want the money they get from it. From this point of view, it could be considered a "paid violation" [34]. From another point of view, we could consider that in order for us to talk about sexual assault, it is not necessary that consent and desire do not coincide. Gimeno, a Spanish author who has studied the subject to the detail, points out that the great problem of prostitution is that it is an institution that teaches inequality [33]. We will look into the complexity of these ideas in the following section: "Current discussions on sexual violence".

Regarding the impact of the different types of gender violence on women engaged in prostitution, a national study carried out in Germany in 2004 found that in the study sample of 1000 women, there were 110 prostitutes [35]. Of these, 82% had suffered psychological violence, 92% sexual harassment, 87% physical violence and 59% sexual violence. Zumbeck et al. conducted a study in Germany in 2001 in 54 women engaged in prostitution: 70% and 68% were physically and sexually attacked, respectively [36].

There is also a thin line between prostitution and human trafficking, in which violence exists by definition, which further reveals this discussion. In a sample of women engaged in prostitution in Spain, it was found that a possible situation of trafficking for sexual exploitation was present in 80% of cases [37].

# 4.2.7 Human Trafficking

Another way of exercising sexual violence is trafficking for the purpose of sexual exploitation. Not all human trafficking is meant for this purpose, but the majority is, 53% according to the United Nations [38]. The Spanish Criminal Code defines the trafficking of human beings as "the capture, transport, transfer, shelter or reception of persons, including the exchange or transfer of control over such persons, when violence, intimidation or deception is used, or a situation of superiority or necessity or vulnerability of a national or non-national victim is abused, or when there is a delivery or receipt of payments or benefits to obtain the consent of the person who has control over the victim, with some of the following purposes: (a) The imposition of forced labour or services, slavery or practices similar to slavery, servitude or begging. (b) Sexual exploitation, including pornography. (c) Exploitation to carry out criminal offences. (d) The extraction of their body organs. (e) The celebration of forced marriages. There is a situation of need or vulnerability when that person has no other alternative, real or reasonable, than to submit to the abuse" [37].

This crime is not gender neutral, since human trafficking affects predominantly women and girls (96% of victims [39]), and of those arrested for human trafficking, only 28% are women [38]. In addition to that, the ways of exploitation applied to women tend to be more severe, especially those aimed at sexual exploitation. We know that, to this day, trafficking is one of the manifestations and consequences of inequality between men and women in their society of origin as well as in the host society [40].

#### 4.2.8 Female Genital Mutilation

Female genital mutilation (FGM) comprises all procedures that involve partial or total removal of the external female genitalia or other injures to the female genital organs for non-medical reasons [41]. It is considered a violation of the human rights of girls and women and reflects the inequality between genders, deeply rooted in certain cultures. At the same time, since female genital mutilation is almost always carried out on children, it also constitutes a violation of rights of the child [42]. This practice involves an assault to the body and sexuality of women. It is now known that more than 200 million girls and women have been subjected to FGM in 30 countries of Africa, the Middle East and Asia where this practice is highly concentrated [43].

## 4.3 Current Discussions on Sexual Violence

Sexual violence against women is currently a field of interest and concern worldwide due to several international movements (#MeToo) and to the wider coverage of situations of abuse, harassment or sexual aggression that have been made public in recent times, being women's voices more present than ever and with less fear from the public of a victim telling experience. This has led to an intense debate amongst different governmental and non-governmental organizations, women's associations or gender experts, studying the complexity of this type of violence against women and taking some measures in this regard.

But we cannot stop here. Sexual violence has been made more visible, but data gathered from recent macro-surveys conducted on the general population is still alarming [18]. Even today there are deeply rooted beliefs with regard to women's behaviour and the responsibility of being sexually assaulted, e.g. flirting when they do not want to have an intimate relationship, dressing provocatively, having many sexual partners, being under the influence of alcohol or wandering around dark alleys. In a multinational study, there was shocking data obtained: the percentage of women who stated that they had been victims of sexual abuse by their partner was between 10% and 50%; in all settings, some women reported being forced by partners into sexual behaviours that they found degrading or humiliating; and in developing countries, there was a high percentage of forced first sex [27].

Some of the reasons argued to explain why a man sexually assaults a woman include the aggressor having mental problems, consuming alcohol and/or drugs, not being able to control their sexual drive, not considering their actions as sexual assault, a low educational level, having suffered sexual abuse during their own childhood, not accepting rejection by a woman, having the need to control women or enjoying sexually submitting women.

Despite all the explanations and myths that have been emerging throughout history, there are still many unanswered questions. Our intention now is to look into the root of this phenomenon from the point of view of the feminist theory.

According to Lola López Mondéjar [44], the sexual revolution of the 1960s brought with it the recognition of women's right to pleasure, but androcentrism transformed it into a projection of male desire over them. The shaping of women's own sexual desire has taken place under the gaze of men [45, 46], so that women's attention does not revolve around the understanding of their own emotions, needs or interests but around the discovery of other's needs in order to guarantee his love [47]. Hence, affective relationships are established as submission-domination from the start, endangering women's subjectivity and coming into play the *power* of men over women [48, 49]. That position of power, in the patriarchal system in which we live, is not only established in the couple, but it could validate men taking advantage of women in different contexts, often when they are young, or helpless.

Beatriz Gimeno states that "sex is a place where socially constructed power relations are elucidated" [15], so that patriarchal sexuality is inherent to domination (conquest) and not so much with reciprocity or equality, making it possible for men to have the option of exercising power over women's bodies, deciding whether to use it or not [50].

Following with the storyline, where there is no equality, seduction is undermined. In this context, current sexual relationships have been sold to us by patriarchy and neoliberal ideology as something absolutely individual and without any consequences, e.g. promiscuous, nonbinding, sporadic relationships, to which women have adapted for fear of losing men, looking old-fashioned or being alone

(which would be an unimaginable failure) [44]. To that concern we should consider that women could behave sexually as men would like and desire, making sex to focus on gratifying men.

Therefore, sexual consent seems to be specific for women and exclusionary for men. The hegemonic masculinity demands to calm a male sexual desire, taking advantage of any opportunity that women offer them. Women will be the target of that desire and will consent to it.

In our opinion and that of many female authors, consent must be voluntary, free and without coercion, deceit or fraud. It must be expressed in some way and acknowledged by the other or others, accepting verbally or nonverbally the willingness to participate in that sexual activity. But the fact that sometimes consent is not clearly provided verbally opens up the possibility of "sexual misunderstandings", revealing that consent transcends the will, intimacy or individuality. It is located on a thin line where sometimes a person can formally agree to have sex but does not really want to participate. The person agrees because of fear of the other person's reaction or by the desire to please him or by the established bond [51].

In this context, acts of sexual violence, which the patriarchal system has arranged to hide and neglect, may occur. If there is no explicit violence, striking physical aggressions or significant intimidation by a stranger, many people think it is not an act of sexual violence [52]. The patriarchal ideology leads us to think that there are only sexual victims in the movies, when in fact the majority of cases does not correspond to that model: there does not have to be resistance from women as violence is usually exercised by men known to the victims, relatives or friends, and it can happen anywhere and at any time of the day.

In this culture of inherited rape, it is considered that sex between men and women is always consented. If not, women could always fight back or show resistance (although studies have already shown that most victims may experience involuntary paralysis that "blocks" any active resistance, and out of fear and disproportion of strength, the response to the assault is passivity) [53]. Therefore the act committed by the rapist is concealed as if it was consented and sought after as part of the game of seduction, allowing the rapist not to take accountability for his act. That heteropatriarchal justification leads to the victim being queried and her story being challenged, assuming that she provoked him as if it was her desire and not from the victim's view [54]. And in this well-consolidated androcentric network that encroaches all areas, the prejudices and gender stereotypes that occur in sexual violence are also replicated in the justice system. The victim must prove that she has been abused and justify why she submitted to the aggressors, losing the gender perspective and envisaging the victim as the culprit of the alleged facts.

This section must not end without a reference to pornography. Pornography can be the instructor, liberator and trigger of a behaviour [55]. It has been proven that in men who access pornography, and especially if it is violent, it could favour the appearance of sexual violence attitudes in their subsequent personal intimate practices [56]. To such an extent, some studies have shown that the probability of raping a woman in the future correlates with the consumption of all types of pornography [57]. The use of pornography and how it is currently understood change the beliefs

on sexual practices, normalizing and integrating acts that imply a sexual assault towards women or attitudes of submission by them during sex.

Therefore, as of today, although sexual violence can be made more visible through different public and/or private agencies and more women are willing to tell their story, report it or lose their fear of making sexual content decisions, the reality is that shaping or shattering the patriarchal beliefs in which we have built our own approach to sexuality is a much broader and more difficult task. Breaking with what the heteropatriarchy has taught men and women in affective and sexual dynamics and not being part of the neoliberal vision that swallows us is an obligation and a need for all, which involves, sometimes, deconstructing part of our identity to build a new one, in feminism, and thus being able to feel more sexually free and in a position of *real equality* with our intimate partners.

# 4.4 Impact of Sexual Violence on Women's Mental Health

# 4.4.1 The Starting Point

Addressing the effects that sexual violence has on women's mental health from a gender perspective entails becoming aware of gender biases that mediate in the very definition of mental disorders and their causes. Medicine and other health sciences are not without ideology. On the contrary, they pose a powerful tool to transmit knowledge in terms of truth and objectivity, forgetting that health is also a metaphysical concept [58]. Many of the myths of the patriarchy have been disseminated, reinforced and consolidated, using the authority of medicine. That is why any manifestations, symptoms and mental disorders that are related to sexual violence and that we will try to describe below cannot be dissociated from the cultural, social and political context in which they are expressed.

According to Judith Herman [59], the history of the study of sexual violence trauma can find its origin in the study of hysteria. It was Sigmund Freud who, listening to the repeated stories of sexual abuse and aggression from women attending his practice, concluded that hysteria was caused by premature sexual experiences of a traumatic nature. However, shortly after he abandoned this theory claiming that those stories were false and framing them as fantasies. It is also known that in his first records of women who reported sexual abuse by their parents, he hid their personal details and changed them to unknown or distant persons [7]. Judith Herman explains that Freud's conversion when abandoning his traumatic theory of hysteria was a consequence of social pressure. Having supported the traumatic theory of hysteria would have meant accepting the sexual domination to which women and children were exposed on a daily and continuous basis [59].

This traumatic reality would once again be recovered and studied by feminist movements. In 1980, the psychological syndrome observed in sexual violence female victims begins to be considered equivalent to post-traumatic stress disorder, which had already been identified in war veterans.

# 4.4.2 Psychological Reaction During Sexual Assault

Mason et al. analysed psychological reactions during the sexual assault in a study published in 2013 [60]. On the one hand, the psychological response triggered by the attack corresponds to the way in which the human system generally responds to a threat: fight, flee and freeze.

The reaction may differ, and there is no single way of reacting when trying to prevent or control the attack. Women apply different strategies [60]:

- The perception of danger may allow women to escape and prevent rape.
- When facing the assault, one can try to fight him, distract him, threaten him, mock him and calm him down.
- Not to show resistance as a way to protect oneself from possible harm. Here, when sexual assault is imminent, the main goal is to stay alive.

As a result of excessive fear, mechanisms of dissociation may be activated, such as depersonalization or derealization, which can have different outcomes: not knowing what is happening, making choices that are not consciously decided, time or sensory alterations and increasing the probability for an individual to develop a post-traumatic stress disorder (PTSD). An additional consequence from dissociation is that memories are altered, being more likely that the events are stored as implicit memories, described as more emotional, sensory and unconscious [60].

During the violation, women also suffer an attack on their identity, because they stop being considered as individuals [31].

According to numerous studies, dissociation is one of the factors more often associated to the development of post-assault symptoms [60].

# 4.4.3 Psychological Effects Following Sexual Assault

Reactions following rape may also vary. On the one hand, there are those who need to share it, report it and/or ask for help, whilst other women decide to keep it for themselves [31], even though each experience and way of reacting is unique [61].

Immediate psychological reactions to sexual assault may include feelings of shock, denial, fear, confusion, anxiety, panic, phobia, withdrawal or guilt. Sleep and eating disorders may also occur [62]. Apparently the more intense the psychological reaction after the assault is, the greater the probability that the symptomatology will be maintained over time [8].

Women may experience a wide variety of feelings after suffering sexual assault. Fear, shame and anger are amongst the most prominent feelings. Feeling of guilt and sense of guilt are also common.

The most frequent fears according to the literature are being alone and fear of strangers, of going out, of darkness, of the reaction from close people, of loneliness,

of testifying in a trial, of not being believed and of becoming pregnant or infected with a sexually transmitted disease. Those fears are replicated months later as a feeling of vulnerability [63].

Problems with sex may also appear. The most frequent difficulties in the sexual sphere according to research are fear of sex and loss of libido [63]. Other women may increase the frequency of sexual contacts without an increase in sexual satisfaction [63].

Another usual consequence is the desire for revenge against the aggressor, which has been related to the hatred of the damage generated by the aggressor and the impossibility of changing what happened. The underlying defence mechanism would be empathizing with the aggressor by means of which there is a reversal of roles where women put themselves in the place of the aggressor with the aim of doing to him what he did to her [31].

A branch of research on this field has investigated the connection between experiencing sexual violence and having additional mental disorders [60, 62]. Thus, researchers have found an increased risk of suffering from depression, substance abuse, anxiety disorders, panic disorder, eating disorders, obsessive-compulsive disorder and bipolar disorder [63]. Of them all, post-traumatic stress disorder (PTSD) has been considered as the clinical presentation that is more compatible with the symptoms that persist in time after suffering a sexual assault [63].

According to various studies, sexual violence is the type of trauma more predictive of the development of PTSD [62]. In fact, in the latest edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-V) by the American Psychiatric Association [64], sexual violence is explicitly mentioned as one of the types of traumatic event that are required to make the diagnosis. This clinical picture is characterized in the DSM-V, by four symptom clusters: the intrusive symptoms associated with the traumatic event, avoidance, alterations in cognition or mood and numbing and hyperarousal.

With the passing of time, women shall try to resume normal life, although many of the described difficulties may persist. One of the symptoms that most commonly persists it is the feeling of vulnerability [63].

A meta-analysis conducted in 2017 concluded that sexual assault is a risk factor for multiple types of psychopathology [65]. That would prompt to direct the clinical approach to trauma-based interventions rather than looking at treatments for specific disorders.

Susana Velázquez [31] suggests that the onset of some effects or others would depend on the psychological status the women had throughout the rape, the capacity for conscious and unconscious resistance and the social and family support. Along these lines, it is believed that the response received by women from their environment is one of the most influential factors on the severity of the symptomatology following trauma [31]. Reactions such as ignoring or not acknowledging the victim's experience and blaming her for it can worsen the clinical picture and hinder recovery [62].

# 4.4.4 Psychological Effects of Sexual Violence Within the Couple

Sexual violence within the couple or by a well-known person is described as more traumatic than that exerted by a stranger [60]; however, there are some studies which conclude otherwise [65]. In any case, when women are raped by a known person, their circle of trust feels questioned. Sexual violence within the couple is often accompanied by other forms of violence. Along these lines, women who suffer sexual violence together with other forms of mistreatment by their partners are found to have a higher prevalence of PTSD and greater emotional distress, than those who do not suffer sexual violence [66].

It has also been devised that sexual violence within the couple is associated with greater severity of depression, suicidal ideation, numbers of attempted suicide and negative body image when compared to women who do not suffer sexual violence or women who have suffered sexual violence outside the couple [66].

Within the context of a couple, women may believe they are not being victims of rape, considering sex as marital duty. This would help normalize coercion and sexual violence [31]. As we previously discussed, sexual violence within the couple remains quite invisible and often goes unnoticed by professionals.

#### 4.4.5 Child Sexual Abuse and Effects on Mental Health

The consequences for child sexual abuse (CSA) victims on their mental health are diverse, ranging from severe psychological sequelae to the absence of negative effects [67, 68].

Evolutionary development has tried to understand this heterogeneity in the psychopathology associated with CSA, both in childhood and adulthood. For instance in a review which discusses incest, the following relevant conclusions were made [68]:

- The majority of victims of incest face (a) physical and psychological trauma from real sexual experiences; (b) prolonged periods of apprehension, guilt and fear between sexual contacts; and (c) the loss of a relationship of trust with an important person close to them.
- In the case of babies, it is considered unlikely that they can understand the inappropriateness of sexual acts perpetrated against them, but both the physical trauma and penetration attempts have consequences on them. Likewise, abuse undermines physical integrity and also their basic trust in caregivers, in a developmental stage where there are no symbolic resources to explain what is happening around them.
- In the preschool years (2–5 years old), there have been discussions around whether the level of development protects against abuse or poses a greater risk; however, the conclusions from the research seem to point more to the idea of a negative impact on the personality development, arguing that at this age, girls are

already aware of the rules and social roles, so their noncompliance will generate anxiety. In addition, victims resorting to mechanisms of denial and dissociation, avoiding situations of abuse and asking for help in the presence of confusion, guilt, shame and fear, pose a major challenge. Many of these situations can be detected by girls showing a precocious knowledge of sexual activity.

- Between 7 and 9 years of age, sexual abuse poses a threat to gaining social experience and feelings of competence, as insecurity can make it difficult to establish friendship and to seek social support. At this stage, denial and dissociation are less common but may still appear.
- In adolescence, the personality and identity formation and integration can be clearly threatened. Abuse after puberty seems to be associated with a lower risk of severe adult psychopathology than when it occurs at a younger age.
- In adulthood, women who have suffered CSA may find it difficult to perform certain roles, such as having couple relationships or being a mother. Also sexual relationships can be affected through different challenges such as communicating with their partner, expressing limits or experiencing arousal. By having children, forgotten aspects of trauma can be revived, especially when they reach the age at which CSA occurred.

If the victim resorts to denial and dissociation, the psychopathology will be more serious [68]. However, CSA victims are more likely to present with anxiety, inappropriate sexual concerns and behaviours, anger, guilt and shame throughout their lives [67].

CSA has also been associated to the presentation of various clinical conditions in adulthood [67, 69]. Studies have found a significantly higher prevalence in adulthood of sexual dysfunction [70, 71], depression [72], suicide attempts [73], borderline personality disorder, multiple personality disorder, somatization disorder, substance abuse and food disorders [67].

Simultaneously, it is common for CSA victims to receive different diagnoses throughout their lives without naming and recognizing such trauma they experienced. [59]. The traditional lack of attention of psychiatry to the history of sexual abuse in girls has been pointed out by several authors [59, 74] and appears to have been slightly mitigated with the momentum that the study of trauma has recently gained.

Similarly, research indicates that women victims of CSA are more vulnerable to further victimization in adulthood, i.e. they may suffer again sexual violence [67, 69] but also physical violence [75, 76] to a greater extent than other women who have not suffered CSA. Some studies have questioned the possible factors and/or mechanisms associated with further victimization in adulthood, noting interpersonal issues, poor skills when identifying risk, dissociative experiences, substance use [76], impulsivity [68], the difficulty to differentiate when and how to trust another person [68] and high-risk sexual behaviours [67]. Judith Herman, for her part, associated further victimization in adult women who have suffered sexual abuse in their childhood with the difficulty to acquire proper defence

mechanisms together with other post-traumatic consequences [59]. Following this line, it is noted that women with a history of CSA are also more prone to depression, PTSD, substance abuse and attempted suicide following further sexual assaults in adulthood [63].

### 4.4.6 Sexual Abuse and Borderline Personality Disorder

The relation between childhood trauma and borderline personality disorder is particularly controversial and has raised great interest from researchers in recent years [77].

Research results generally concur that childhood sexual trauma constitutes a non-specific risk factor for borderline personality disorder (BPD) [78–81]. However, the results are not conclusive with regard to the directions of child sexual abuse, personality traits and personality disorders [82].

A fairly recurrent aspect in those studies is the role of dissociation in borderline personality disorders. In general, the development of pathological dissociation is associated with CSA, just as there is a clear relation between dissociative disorders and CSA [79]. Some authors propose that, if borderline personality disorder falls into a category associated with trauma, it must be featured by some form of dissociation [83]. This way, sexual abuse could be a relevant causal factor for the dissociation experimented by certain women with borderline personality disorder, but it would still be a factor amongst many [79].

Many studies suggest the use of alternative, more transactional and integrative models that would allow accounting for the complexity of the relation between having suffered sexual abuse and any subsequent psychopathology [84]. The theory of structural dissociation of the personality by Van der Hart et al. [83] points into this direction and proposes that genetic predisposition, early attachment and early trauma would be factors that converge to a greater or lesser extent in the development of borderline features.

### 4.4.6.1 Psychosis and Sexual Abuse

There have been fewer studies on psychosis and the incidence of social factors, although it seems to have gained momentum in recent years. A review by Read et al. showed evidence that childhood trauma is a causal factor for psychotic phenomena and especially for hallucinations. Specifically, several of the studies analysed in this review noted the relationship between child sexual abuse and psychosis [85]. In a previous review in 2005, similar results were found [86]. In order for these results to be explained, several theories take into account the findings of the effects of trauma on neurodevelopment and cognitive processes, dissociation and attachment. In terms of sexual violence, the conceptualization of hallucinations as dissociative symptoms may be found interesting. These theories state that within a dissociative mind, thoughts, feelings, memories, wills and behaviours that intrude upon the executive function of self may trigger different psychotic experiences [86].

Along these lines, Sitko et al. observed a strong association between sexual abuse and the presence of hallucinations regardless of the attachment style. They also found a relationship between rape and hallucinations when there was an anxious attachment [87].

The possible relationship between suffering sexual abuse and the content of the delusions and hallucinations has also been discussed. A recent study conducted from a phenomenological angle studied, with a first-person perspective, seven women victims of psychosis who had suffered sexual abuse, finding that the psychotic experiences they described as hearing voices or paranoia were characterised by a tone of general condemnation for wrongdoing and made reference to the subject of sexual abuse [88].

On the other hand, there is evidence that women diagnosed with severe mental disorders have a higher risk of suffering sexual violence [89].

### 4.4.7 The Reality of Trauma and Its Diagnosis

Due to the wide range of responses generated by sexual violence, there is a risk of mistaking the psychosocial consequences of trauma with diagnostic entities [31]. With regard to this idea, Judith Herman [59] has called for attention from the mental health field to their trend to associate situations of abuse with previous psychopathology of the victims, instead of transposing their symptoms as responses to abuse. Similarly she has pointed out the limitations of the classic diagnostic categories, including post-traumatic stress disorder, when reflecting the reality of victims who are exposed to continuous trauma over time, particularly when accounting for any changes that their personality may go through. This type of trauma would be more unique to sexual abuse, sexual exploitation or sexual violence within the couple. Judith Herman proposes an alternative diagnosis: "complex post-traumatic stress disorder". This entity includes manifestations that do not appear in the classic post-traumatic stress disorder such as suicidal impulse, self-injury and alterations in the sexual sphere, in perception of the perpetrator, in relations with others and in systems of meaning.

Just like some authors [59, 83], we believe that the reactions of girls and women to sexual violence are, primarily, strategies they were able to implement in order to survive and adapt to the horror and failure of a society which has been unable to protect their rights. All those women have a story to tell.

# 4.5 Reflections on Intervention: Effects on Therapists

The goal of this chapter is not to deepen into the different models of intervention in sexual violence; however, we will offer a brief observation on them.

Healthcare centres can be the first point of call for victims of sexual violence. More often than not, the initial contact and the quality of care from these centres determine the future health of the person who suffered sexual abuse or assault, although there are still ideological and attitudinal barriers that lead to mistakes going from detection to the lack of awareness of the emotional state of the victim [90]. Hence, it is crucial that all those healthcare professionals who identify, assess and conduct any treatment in this situation receive training in gender bias and trauma, which accommodates the different experiences from people who suffer this kind of violence.

Regarding mental health interventions, it is necessary to differentiate between the approach in adults who have suffered sexual abuse either in childhood or in adulthood and children victims of CSA. Certain authors point out that in CSA, not all victims require direct psychological treatment and that, in some cases, the therapy could imply a second victimization. From this point of view, therapy would be indicated based on the severity of the child's psychopathological alterations and their degree of adaptation. Those same authors state that, in other cases, the role of healthcare therapists may be limited to serving as guidance and support to the family and assessing the child's development [91].

From another angle, a review by Vallejo and Córdoba [92] conducted on CSA victims and sexual abuse in adult women points out that the sooner the therapy is initiated following sexual abuse or assault and the initiation of therapy, the better the outcome in symptoms such as depression, anger, dissociation and loneliness. These authors consider that factors such as discrimination and blaming the victim, not being aware of the effects of trauma, or non-positive therapeutic bonds, amongst others, may trigger minimizing the possibilities of accessing a treatment that may help the victim reduce the negative consequences of trauma and prevent it from repeating or prevent violence from going on [91].

Similarly, several authors agree that in terms of intervention in victims of sexual violence, it is important to count with the support of a multidisciplinary team and combining different therapeutic modalities [93–95]. Research shows that complementing therapeutic and pharmacological interventions, in severe cases of sexual abuse associated with PTSD, helps improve the symptoms [91]. It is crucial to keep in mind that whenever pharmacotherapy is used, a parallel psychosocial intervention should be carried out [96].

Regarding group psychotherapeutic interventions, a study compared the efficacy of systemic versus psychoanalytic group psychotherapy in CSA adult women. They observed that both managed to improve the quality of life, reduce psychopathological symptoms and improve global functioning of patients [97]. In another study evaluating the efficacy of cognitive-behavioural therapies, exposure therapy appeared to be effective in the treatment of PTSD, performed together with cognitive work and interpersonal psychotherapy [98].

Both in sexual violence in adult women and in other types of gender violence, one of the most known and cited programmes in research is the one posed by psychologist Leonore Walker. She names it "Survivor Therapy Empowerment Program" and focuses on civil rights, trauma theory and feminist theory [99].

Importantly, in any intervention used, we must consider the risk of revictimization. The structure of therapeutic settings implies an inequality of power between the patient and the therapist, where inequalities of gender, race and social

class, amongst others, might also be added. Therefore, we as therapists run the risk of not lending credibility and, directly or indirectly, imposing socially legitimated beliefs, attitudes or behavioural patterns that may lead to a new victimization. In order to prevent this, we consider it imperative for therapists to be aware of our privileges, beliefs and values and to review our position when we read and interpret our patients' stories and experiences and review the response (verbal or non-verbal) that we provide them to avoid them falling into any form of apparently subtle violence, in a context of extreme vulnerability.

### 4.5.1 Effects on Therapists

Assisting victims of sexual violence implies a dynamic that affects the psyche and the belief system of the therapists who work with them. Many of those effects are common to those experienced by people caring for victims of other types of interpersonal violence. As described by Judith Herman, certain aspects of traumatized people, such as inactivity and helplessness, being trapped in the past, depressive symptomatology which is resistant to therapy, physical complaints and/or the anger they manifest, usually generate frustration in people around them, including therapists [59].

When working with trauma survivors, therapists usually experience what is defined as "countertransference"; according to Herman, "in the role of witness to disaster or atrocity, the therapist at times is emotionally overwhelmed. She experiences, to a lesser degree, the same terror, rage, and despair as the patient" [59]. It is also common for the therapist to revive any personal traumatic experiences of violence that they may have suffered in the past [100].

To conclude, we want to highlight the need for therapists who witness and work with victims of sexual violence and other interpersonal violence, to pay attention to the effects and feelings that this situation causes on us and the defensive strategy we bring into play in order to protect ourselves from those effects [101]. Here we agree with Judith Herman on the importance of having an ongoing support system for the therapist. Just as no survivor can recover alone, no therapist can work with trauma alone.

#### 4.6 Discussion

Throughout this chapter, we were able to corroborate, based on the data we reviewed, that sexual violence against women is not a recent and more frequent problem in our current society. Although this phenomenon gets more media coverage nowadays and it keeps ringing in our ears, it is a universal and invisible reality that goes back to ancient times, taking place in different ways according to historical changes occurring in the systems of domination of women.

At present, sexual violence is perceived as an attack on the integrity and identity of women, and its physical and psychological consequences are recognized. But there is still a long and difficult road ahead in order to deconstruct the hegemonic patriarchal model and thus being able to change the conception of women's bodies and sexuality. This would require a revision of the current masculine identity

construction, which it is translated into power and being fuelled by a culture of leisure and pleasure where asymmetric relationships between men and women are perpetuated.

From a real inequality perspective, sexual violence against women may be exercised at different stages of life, in different contexts and in different ways, with the patriarchal ideology being responsible for minimizing or denying certain violent behaviours by redefining them as *consented*. We consider it interesting to address topics such as love, sex, consent, pornography or prostitution, and we wonder whether the patriarchal sex industry might not have turned any aspirations of diversity, respect and reciprocity, into a modern and complete line of business that recreates and reinforces the inequality between men and women.

Along these lines, manifestations, symptoms and mental disorders associated to sexual violence cannot therefore be dissociated from the cultural, social and political context where they happen, where women are victims of an attack on their own identity and subjectivity. As a result of the psychological trauma caused by sexual violence, different mechanisms and/or disorders may be activated, which, according to the literature, show limitations when reflecting the reality of the victims who are exposed to this type of trauma continuously and repeatedly.

Hence, it is crucial that all those healthcare professionals who identify, assess and conduct any treatment in this situation receive training in gender bias and have a feminist perspective that embraces the experiences of women who suffer this or any other type of violence. Considering essential, in addition, that professionals work as a team, trying to minimize the traumatic countertransference with the support of colleagues and external supervision, channelling any emotions that are brought into play during therapy.

Following our analysis of the literature and looking at where we are now and how we should progress in terms of sexual violence against women, we come upon a reality in which there is still much to be done:

We suggest the need for a gender equality education that begins as soon as we are born, in which symmetrical, respectful and tolerant relationships are built, and where sexuality can be integrated without the constructs of domination and power, both genders gaining access to their desire and pleasure in an egalitarian way.

From our point of view as mental healthcare professionals, we deem it necessary for our colleagues to receive training from a gender perspective, not forgetting about the patriarchal system that exerts a considerable influence on us when interpreting, listening or preparing the victims' therapies.

Lastly, we consider it relevant that the management of victims of sexual violence is carried out with the greatest possible care at all levels (healthcare, judicial, social, family), refining certain procedures that lead inevitably to new victimization of women and hinder the recovery process.

### References

- 1. Osborne R. Apuntes sobre violencia de género. Barcelona: Ediciones Bellaterra; 2009.
- 2. Vigarello G. Historia de la violación: Siglos XVI–XX. Madrid: Cátedra; 1999.

- 3. Tardón Recio B. La violencia sexual: desarrollos feministas, mitos y respuestas normativas globales [tesis]. Madrid: Universidad Autónoma de Madrid; 2017.
- Segato RL. Las estructuras elementales de la violencia: ensayos sobre género entre la antropología, el psicoánalisis y los derechos humanos. 2nd ed. Buenos Aires: Prometeo Libros; 2010
- Anderson S, Zinsser JP. Historia de las mujeres: una historia propia. 2nd ed. Barcelona: Diagonal; 2009.
- World Mental Health. Global and regional estimates of violence against women: prevalence and health effects of intimate partner violence and non-partner sexual violence. Geneva: WHO: 2013
- Fernández AM. Las lógicas sexuales: amor, política y violencias. Buenos Aires: Nueva visión; 2012.
- 8. Veyne P. Amor, familia, sexualidad. Barcelona: Argot; 1984.
- Foucault M. Historia de la sexualidad I: la voluntad del saber. 25th ed. Madrid: Siglo Veintiuno Editores; 1998.
- 10. Millett K. Política sexual. Valencia: Cátedra. Feminismos; 1995.
- 11. Amnistía Internacional. Violación y violencia sexual: leyes y normas de derechos humanos en la corte penal internacional. Madrid: Editorial Amnistía Internacional; 2011.
- 12. Mackinnon C. Feminismo inmodificado: discursos sobre la vida y el derecho. Buenos Aires: Siglo Veintiuno; 2014.
- 13. Durán Segura MM. Sexismo benévolo y violencia sexual: percepción social de la violación en relaciones íntimas [tesis]. Granada: Universidad de Granada; 2010.
- Benjamin J. Los lazos de amor: psicoanálisis, feminismo y el problema de la dominación. Buenos Aires: Paidós; 1996.
- Gimeno B. Sexo y empatía. Las bases éticas del follar. CTXT. 2018 [cited 2018-07-22]. http://ctxt.es/es/20180523/Firmas/19815/sexo-feminismo-empatia-sexualidad-machista. htm#.Wwr4RCS1d9p
- 16. Organización Mundial de la Salud. Violencia contra la mujer: violencia de pareja y violencia sexual contra la mujer. Nota descriptiva N°. 239. Actualización de septiembre de 2011. Ginebra: Organización Mundial de la Salud; 2011.
- 17. Eur-lex.europa.eu. Europa: EUR-Lex; 2002. http://data.europa.eu/eli/dir/2002/73/oj
- 18. Percepción social de la violencia sexual. Informe realizado por la Delegación del gobierno para la violencia de género. Madrid: Ministerio de Sanidad, Servicios Sociales e Igualdad; 2018.
- Barudy J. El dolor invisible de la infancia: Una lectura ecosistémica del maltrato infantil.
   Barcelona: Paidós Terapia Familiar; 1998.
- 20. Finkelhor D. Sexuality victimized children. New York: Free Press; 1979.
- Unicef.es. NY, EEUU: Unicef; 2013. https://www.unicef.es/publicacion/ ocultos-plena-luz-un-analisis-estadistico-de-la-violencia-contra-los-ninos
- 22. Coe.int. Strasbourg: Council of Europe; 2014. https://www.coe.int/t/dg3/children/1in5/Source/I%20in%205%20fact%20argumentation%20\_en.pdf
- Polo Usaola C. Maltrato a la mujer en la relación de pareja. Factores relacionales implicados [tesis]. Madrid: Universidad de Alcalá. Facultad de Medicina; 2001.
- 24. Savethechildren.es. España: Save the Children; 2001. https://www.savethechildren.es/sites/default/files/imce/docs/manual\_abuso\_sexual.pdf
- 25. Pereda N, Abad J, Guilera G, Arch M. A self-report study of sexual victimization in Spanish community adolescents and at-risk groups. Gac Sanit. 2015;29(5):328–34.
- 26. Rey A. Acoso y abuso sexual en las redes sociales. Instituto asturiano de la mujer del principado de Asturias. Oviedo: Consejería de presidencia; 2017.
- 27. García-Moreno C, et al. Estudio multipaís de la OMS sobre salud de la mujer y violencia doméstica contra la mujer: primeros resultados sobre prevalencia, eventos relativos a la salud y respuestas de las mujeres a dicha violencia. Ginebra: Organización Mundial de la Salud; 2005.

- Finkelhor, D. Marital rape: the misunderstood crime. En: O' Neill Alexander K. Reclaiming our lives. New Hampshire: University of Massachusetts., Crespo y Waldron; 1985. p. 203–214.
- 29. Agencia Europea de los derechos fundamentales de la Unión Europea (FRA). Violencia de género contra las mujeres: una encuesta a escala de la UE. Luxemburgo: Oficina de Publicaciones de la Unión Europea; 2014.
- 30. Polo Usaola C., López Gironés M., Fernández Martín P., Muñoz Sánchez S., San Vicente Cano A. Visibilización de la Violencia de Género en consultas sanitarias. Un proyecto de Atención Primaria y Salud Mental. Convocatoria 2015. Buenas Prácticas en el Sistema Sanitario de Salud. Ministerio de Sanidad, Consumo y Bienestar Social. https://www.msssi.gob.es/organizacion/sns/planCalidadSNS/pdf/BBPP\_2015/Actuaciones\_Sanitarias\_VG/BBPP VG Madrid 3.pdf
- 31. Velázquez S. Violencias cotidianas, violencia de género. Escuchar, comprender, ayudar. 1st ed. Argentina: Paidós psicología y psicoterapia; 2003.
- 32. Escudero A. Factores que influyen en la prolongación de una situación de maltrato a la mujer: un análisis cualitativo [tesis]. Madrid: Universidad Autónoma de Madrid. Facultad de Medicina. Departamento de Psiquiatría; 2004.
- 33. Gimeno B. La prostitución. Barcelona: Bellaterra; 2012.
- 34. Díez Gutiérrez EJ. Prostitución y violencia de género. Nómadas. Revista Crítica de Ciencias Sociales y Jurídicas. 2009;24:371–3.
- 35. Ministerio Federal de Asuntos de la Familia, Personas Mayores, Mujeres y Jóvenes de Alemania: Informe de Datos de Género, Capítulo 10: Violencia y violencia de mujeres y hombres. Alemania; 2004. p. 651–652.
- Zumbeck S. La prevalencia de experiencias traumáticas, trastorno de estrés postraumático y disociación en prostitutas. Hamburgo; 2001.
- Violenciagenero.msssi.gob.es. España: Ministerio de sanidad, servicios sociales e Igualdad;
   2016. http://www.violenciagenero.msssi.gob.es/violenciaEnCifras/boletines/boletinAnual/docs/BE\_Anual\_2016.pdf
- Unodc.org. España: Oficina de las Naciones Unidas contra la droga y el delito; 2014. https:// www.unodc.org/documents/data-and-analysis/glotip/GLOTIP14\_ExSum\_spanish.pdf
- Unodc.org. Vienna: United Nations Office on drugs and crime; 2016. https://www.unodc.org/documents/lpo-brazil//Topics\_TIP/Publicacoes/2016\_Global\_Report\_on\_Trafficking\_in Persons.pdf
- Violenciagenero.msssi.gob.es. España: Ministerio de sanidad, servicios sociales e Igualdad;
   2015–2018. http://www.violenciagenero.msssi.gob.es/planActuacion/planContraExplotacionSexual/docs/Plan\_Integral\_Trata\_18\_Septiembre2015\_2018.pdf
- 41. Apps.who.int. Geneva: World Health Organization, UNICEF & United Nations Population Fund; 1997. http://www.who.int/iris/handle/10665/41903
- Organización Panamericana de la Salud. Comprender y abordar la violencia contra las mujeres. Mutilación genital femenina. Washington, DC: OPS; 2013. https://www.paho.org/ hq/dmdocuments/2014/20184-Mutilacion.pdf
- Unicef.org. NY, EEUU: Unicef; 2016. https://www.unicef.org/media/files/FGMC\_2016\_ brochure\_final\_UNICEF\_SPREAD.pdf
- 44. López Mondéjar, L. ¿Qué quieren las mujeres O por qué a Lilith no le gustaba la postura del misionero. La opinión de Murcia; 2018. https://www.laopiniondemurcia.es/opinion/2018/03/08/quieren-mujeres/903816.html
- 45. Esteban ML, Távora A. El amor romántico y la subordinación social de las mujeres: revisiones y propuestas. Anuario de Psicología Universitat de Barcelona. 2008;39(1):59–73.
- 46. Dio Bleichmar E. Morbilidad diferencial. Enfoque psicoanalítico. In: Mas Hesse J, Tesoro Amate A, editors. Mujer y salud mental. Madrid: Asociación Española de Neuropsiquiatría; 1993. p. 103–32.
- 47. Dio Bleichmar E. Incidencia de la violencia sexual sobre la construcción de la subjetividad femenina. In: Hernando A, editor. La construcción de la subjetividad femenina. Madrid:

- Instituto de Investigaciones Feministas de la Universidad Complutense de Madrid; 2000. p. 187–222.
- 48. Levinton N. El superyó femenino. La moral en las mujeres. Madrid: Biblioteca Nueva; 2000.
- 49. Levinton, N. Mujeres y deseo de poder: un conflicto inevitable. En A. Hernando Gonzalo (Coord.) ¿Desean las mujeres el poder? Cinco reflexiones en torno a un deseo conflictivo. Madrid: Minerva; 2003. p. 171–224.
- Barjola N. Microfísica sexista del poder, el caso Alcàsser y la construcción del terror sexual. Barcelona: Virus; 2018.
- 51. Pérez Hernández Y. Consentimiento sexual: un análisis con perspectiva de género. Universidad Nacional Autónoma de México-Instituto de Investigaciones Sociales. Revista Mexicana de Sociología 2016;78(4):741–767. México, D.F. ISSN: 0188-2503/16/07804-07.
- Borraz M. La sentencia a 'la manada' tiene efectos incluso para las mujeres que no han sido agredidas. Eldiario.es. 2018. https://www.eldiario.es/sociedad/entrevista-manada-barbaratardon 0 767473933.html
- 53. Joy S. No es no: cómo definir el consentimiento en las relaciones. Broadly. 2016. https://broadly.vice.com/es/article/paya8k/paralisis-victimas-violacion
- Mateos de Manuel V. Licantropía y cultura de la violación. La Grieta. 2017. http://lagrietaonline.com/licantropia-cultura-la-violacion/
- 55. Stoner JR, Hughes DM. Los costes sociales de la pornografía. Madrid: Rialp; 2014.
- 56. Allen M, Emmers T, Gebhardt L, Giery MA. Exposure to pornography and acceptance of the rape myth. J Commun. 1995;45(1):5–26.
- 57. Check J., Guloien T. The effects of repeated exposure to sexually violent pornography, non-violent dehumanizing pornography, and erotica. Zillmann D. y Bryant J. (Ed.) Pornography: research advances and policy considerations. Hillsdale, NJ: Lawrence Erlbaum Associates; 1989. p. 159–184.
- 58. Skrabanek P. La muerte de la medicina con rostro humano. Madrid: Diaz de Santos; 1999.
- 59. Herman J. Trauma y recuperación. Madrid: Espasa Calpe; 2004.
- 60. Mason F, Lodrick Z. Psychological consequences of sexual assault. Best Pract Res Clin Obstet Gynaecol. 2013;27(1):27–37.
- 61. Pikara Magazine. Me violaron y seguí sonriendo. Pikara Magazine. 2018 [cited 2018-07-22]. http://www.pikaramagazine.com/2018/06/me-violaron-y-segui-sonriendo/.
- 62. Jina R, Thomas LS. Health consequences of sexual violence against women. Best Pract Res Clin Obstet Gynaecol. 2013;27(1):15–26.
- 63. De la Cruz M. A. Factores predictivos del impacto psicopatológico en víctimas de agresión sexual [tesis]. Madrid: Universidad Complutense de Madrid; 2014.
- American Psychiatric Association. DSM-5. Manual diagnóstico y estadístico de los trastornos mentales. Barcelona: Panamericana; 2014.
- Dworkin E, Menon S, Bystriynski J, Allen N. Sexual assault victimization and psychopathology: a review and metanalysis. Clin Psychol Rev. 2017;56:65–81.
- 66. Martínez Sanz A. Estudio de la violencia sexual sobre las mujeres en la relación de pareja, y las repercusiones de la violencia en pareja sobre la sexualidad de las mujeres: Estudio realizado en servicios públicos de la Comunidad Valenciana [tesis]: Universidad de Alicante; 2015.
- 67. Murray L, Nguyen A, Cohen J. Child sexual abuse. Child Adolesc Psychiar Clin N Am. 2014;23(2):321–37.
- Cole P, Putnam F. Effect of incest on self and social functioning: a developmental psychopathology perspective. J Consult Clin Psychol. 1992;60(2):174

  –84.
- 69. Werner K, McCucheon W, Challa M, Agrawal A, LynsKey M, Conroy E, et al. The association between childhood maltreatment psychopathology, and adult sexual victimization in men and women: results from three independent samples. Psychol Med. 2016;46(3):563–73.
- López S, Faro C, Lopetegui L, Pujol-Rivera E, Monteagudo M, Cobo J, et al. Impact of childhood sexual abuse on the sexual and affective relationships of adult women. Gac Sanit. 2017;31(3):210–9.

- 71. Bachmann G, Moeller T, Benett J. Childhood sexual abuse and the consequences in adult women. Obstet Gynecol. 1988;71(4):631–2.
- 72. Satyanarayana V, Chandra P, Vaddiparti K. Mental health consequences of violence against women and girls. Curr Opin Psychiatry. 2015;28(5):350–6.
- 73. Dvries K, Mak J, Child J, Falder G, Bacchus L, Astbury J, et al. Childhood sexual abuse and suicidal behavior: a meta-analysis. Pediatrics. 2014;133(5):1331–44.
- 74. Jennings A. On being invisible in the mental health system. J Ment Health Adm. 1994;21(4):374–87.
- 75. Polo C, et al. Abuso sexual infantil: coexistencia con otros tipos de maltrato en edad infantil y adulta. Archivos de Psiquiatría. 2006;69(2):133–44.
- Arata CM, Lidman L. Marriage, child abuse and sexual revictimization. J Interpers Violence. 2002;17:953–71.
- 77. Lieb K, Zanarini M, Schmahl C, Linehan M, Bohus M. Boderline personality disorder. Lancet. 2004;364(9432):453–61.
- 78. Frías Á, Palma C, Farriols N, Gonzalez L. Sexuality-related issues in borderline personality disorder: a comprehensive review. Personal Ment Health. 2016;10(3):216–31.
- 79. Korzekwa M, Dell P, Pain C. Dissociation and borderline personality disorder: an update for clinicians. Curr Psychiatr Ther. 2009;11(1):82–8.
- 80. Zanarini M. Childhood experiences associated with the development borderline personality disorder. Psychiatr Clin North Am. 2000;23(1):89–101.
- 81. Paris J, Zweig-Frank H. A critical review of the role of childhood sexual abuse in etiology of borderline personality disorder. Can J Psychiatr. 1992;37(2):125–8.
- 82. Pereda N, Jiménez-Padilla R, Gallardo-Pujol D. Personality disorders in child sexual abuse victims. Actas Esp Psiquiatr. 2011;39(2):131–9.
- 83. Mosquera D, Gonzalez A, Hart O. Trastorno límite de la personalidad, trauma en la infancia y disociación estructural de la personalidad. Revista Persona. 2011;1(11):10–40.
- 84. Nurcombe B. Child sexual abuse I: psychopathology. Aust N Z J Psychiatry. 2000;34(1):85–91.
- Larkin W, Read J. Childhood trauma and psychosis: evidence, pathways, and implications. J Posgrad Med. 2008;54:287–93.
- 86. Read J, van Os J, Morrison AP, CAR. Childhood trauma, psychosis and schizophrenia: a literature review with theoretical and clinical implications. Acta Psychiatr Scand. 2005;112:330–50.
- 87. Sitko K, Bentall RP, Shevlin M, O'Sullivan N, Sellwood W. Associations between specific psychotic symptoms and specific childhood adversities are mediated by attachment styles: an analysis of the National Comorbidity Survey. Psychiatry Res. 2014;217(3):202–9.
- 88. Rhodes JE, O'Neill ND, Nel PW. Psychosis and sexual abuse: an interpretative phenomenological analysis. Clin Psychol Psychother. 2018;25:1–10.
- 89. Khalifeh H, Oram S, Osborn D, Howard L, Johnson S. Recent physical and sexual violence against with severe mental illness: a systematic review and meta-analysis. Int Rev Psychiatry. 2016;28(5):535–46.
- 90. Khanna R. Communal violence in Gujarat India: impact of sexual violence and responsibilities of the health care system. Reprod Health Matters. 2008;16(31):142–52.
- 91. Echeburúa E, Guerricaechevarría C. Tratamiento psicológico de las víctimas de abuso sexual infantil intrafamiliar: un enfoque integrador. Psicol Conduct. 2011;19(2):469–86.
- 92. Vallejo Samudio AR, Córdoba Arévalo MI. Abuso sexual: tratamientos y atención. Rev psicol (Lima). 2012;30(1):19–46.
- 93. Assis C, Palomino V, Rosselli M. Mujeres víctimas sexualmente perfil sociodemográfico y análisis de la atención en un centro de referencia. Ciencia y Salud. 2009;27(1):22–7.
- 94. Bernik M, Laranjeiras M, Corregiari F. Tratamiento farmacológico del trastorno de estrés postraumático. Rev Bras Psiquiatr. 2003;25:46–50.
- Menicucci E, Machin R, Aibal Valverde A, Kossel K, Morelli K, Fernández L, et al. Atención a mujeres víctimas de violencia sexual: un estudio cualitativo. Salud Pública. 2005;39:376–82.
- 96. Bernik M, Laranjeiras M, Corregiari F. Tratamiento farmacológico del trastorno de estrés pos-traumático. Revista Brasileña de Psiquiatría. 2003;25:46–50.

- 97. Lau M, Kristensen E. Outcome of systemic and analytic group psychotherapy for adult women with history of intrafamilial childhood sexual abuse: a randomized controlled study. Acta Psychiatr Scand. 2007;116:96–104.
- 98. Foa EB, Keane TM, Friedman MJ. Effective treatments for PTSD: practice guidelines from the International Society for Traumatic Stress Studies. New York: Guilford Press; 2000.
- Walker L, Carrio C, Gill K, et al. Programa de empoderamiento de terapia para supervivientes (STEP). In: Walker LEA, editor. El síndrome de la mujer maltratada. Bilbao: Desclée de Brouwer: 2012.
- 100. Ojeda Teresa E. El autocuidado de los profesionales de la salud que atienden a víctimas de violencia sexual. Rev Per Ginecol Obstet. 2006;52(1):21–7.
- 101. Romero SI, Alvárez LR, Czalbowski S, Soria López TN, Villota Alonso MT. Guía de intervención en casos de violencia de género. Una mirada para ver. Madrid: Síntesis; 2015.

# Traumatic Life Events and High Risk for the Development of Psychopathology

5

María Recio-Barbero, Margarita Sáenz-Herrero, Paloma Navarro, and Inmaculada Hurtado

You cannot imagine you would ever do /You are going to do bad things to the children/you are going to suffer in ways you have not heard of /you are going to want to die..../I say /Do what you are going to do, and I will tell about it.

Sharon Olds. The gold Cell.

#### **Abstract**

Traumatic events can cause deep wounds in the physical, emotional and psychological experience of the situation. The experience of traumatic events has been identified as a risk factor for the development of a large number of psychiatric disorders, between them, PTSD, eating disorders, depression and psychosis. In fact, in individuals suffering from severe psychiatric disorders, childhood trauma is reported at a much higher rate. In this chapter, we will try to review the different dimensions of the suffering and emergence of trauma in holistic, gendersensitive and integrated ways. The body is the epicentre of trauma in its individual experience, identity impact and excruciating remembrance of the event. Yet sociopolitical contexts and their ruptures also inhabit the human body: violence, poverty, abuse and oppression. Thus, understanding trauma requires giving spe-

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cific attention to the sociocultural fabric in which the wound is inscribed and suffered. In the first part of this chapter, we will approach to the historic perspective of the origins of trauma, trying to define the elements around this complex concept. In the second part, we will consider from a holistic integrative biopsychosocial perspective the biological and psychopathological aspects that may emerge after a traumatic event.

# 5.1 Introduction: A Brief History About Hysteria and Trauma

The concept of trauma has been ubiquitously defined throughout human history. Body images have been deconstructed and reconstructed in the course of the centuries. To understand the history of trauma, we must go further back in time, when neurologist Jean-Martin Charcot carried out the study on hysterical women in Salpetriere Hospital, France. This condition was largely considered a women's disease which presented a wide variety of symptoms, including amnesia, paralysis states and sensory loss. Charcot was the first of his generation to understand that these symptoms stemmed from a psychological nature rather than a physiological one and, more importantly, that the effect of traumatic events could induce those states. But despite his discoveries, he had little or none interest in these hysterical women's inner lives. Years later, some of Charcot's successors like Pierre Janet or Sigmund Freud tried to overcome his work by demonstrating the cause of these hysterical symptoms. It was by the mid-1880s when Janet and Freud, yet almost at the same time, came to the conclusion that hysteria was a condition caused by psychological trauma. Those traumatic experiences (such as rape) could cause unbearable emotional reactions which resulted in an altered state of patient consciousness that, in turn, induced these hysterical symptoms. By 1896, Freud made a discovery from his talks with his patients that would become a milestone in understanding the underlying causes at the origin of his patients' symptoms [1]:

I therefore put forward the thesis that at the bottom of every case of hysteria is one or more occurrences of premature sexual experience, occurrences which belong to the earliest years of childhood

Since the *Belle Époque* of hysteria and hypnotism, the study of hysteria changes dramatically by the discovery that those events not only occur in the lower strata of the society but also in bourgeoisie and aristocracy. The atrocities exposed by those women's reports were unbearable and, as a consequence, relegated the study of hysteria and trauma to a state of "denial and oblivion".

As said by Judith Herman in her book, *Trauma and Recovery*, there is continuing controversy on trauma and memory [2]:

The study of psychological trauma has a curious history –one of episodic amnesia. The study of psychological trauma does not languish for lack of interest. Rather, the subject provokes such intense controversy that it periodically becomes anathema

Following Herman Freyd points out "among the traumatic events that result in *an intense controversy that periodically becomes anathema*, sexual abuse of children seems to be the most revolutionary" [3]. Very often, societies protect themselves from pain and suffering through oblivion, but as it happens, in some cases, the best way to forget is through memory and the conscious and emotional recognition of the event. While preserving the memory in the past, we displace the painful engravement of the event. The stories can be used to empower and to humanize people, but they can also humiliate and broke the dignity of those people affected [4].

Depending on the sociopolitical and cultural context of the moment, the study of trauma is oblivious or denied. In our social and political moment, the ongoing debate on the concept of psychic trauma is still in force, and the notion has been changing with the international classifications in the DSM and the ICD throughout its editions and revisions. To date, there is not a universally accepted definition of trauma.

Related to trauma, the body has an important role. The body is often referred to as a *thing* intersected by society, biology, subjectivity, history, etc. Etymologically, the notion of intersection takes us to cut, to node, to section and to sword. The act of intersection as a concept about the body pierces its image of inscrutability. The body penetrated by trauma will no longer be a mere bearer of signs and symptoms; instead, it will be able to capture sense and create meanings to be integrated in its identity. In phenomenology, the corporeality is the lived and living body: "The world is not what I think but what I live through" [5].

Nevertheless, in Western societies, the body has been and is undervalued against the pureness and overvalued reason, most of them in a moral sense, but still not giving way to *Je sens*, *je pense en dedans de moi*. Excessive expressiveness and body movements are left in the powerful hands of oblivion, and symptoms become central. The body is extremely hierarchized in our culture as an image, a flat image that ceased to be volume to become a glowing silhouette highlighted in the screen, but with no subjective lived events. In trauma, silence is broken in giving way to the lived body. In the diverse contributions to the concept of trauma, aspects related to corporality as the most lived experience of the traumatic event are not always included.

Following the biopsychosocial model, we know that the diverse environmental and sociocultural aspects are risk factors in psychopathology and that they manifest complex interactions with neurobiological elements, which frequently are directly connected to gender. In trauma, when we consider the experience of traumatic events, this panorama is maximized and sociocultural factors such as the absence of social support and family's exposure to violence are in this context, determining. Thus, and as described in the literature, women are more likely to be exposed to some harmful environmental aspects causing the development of the disorder (sexual abuse), while men are more likely to be exposed to other factors (physical abuse).

In this chapter, we will try to review the different dimensions of the suffering and emergence of trauma in holistic, sociobiological, gender-sensitive and integrated ways. The body is the epicentre of trauma in its individual experience, identity impact and excruciating remembrance of the event. Yet sociopolitical contexts and their ruptures also inhabit the human body: violence, poverty, abuse and oppression. Thus, understanding trauma requires giving specific attention to the sociocultural fabric in which the wound is inscribed and suffered. It means reviewing integrating models in which the diverse dimensions of suffering are considered, gathering the much-heralded but less-performed psychosocial approach to health [6].

In the first part of this chapter, we will approach the historical elements surrounding the concept of trauma considering corporality and its gendered embodied reality. In the second part, we will approach the concept of trauma from a holistic-integrative perspective around the extensive disruption that occurs in identity and in corporeality. The psychopathological conditions that may emerge after a traumatic event are many and varied; even though we will not attempt to cover them all, we will try to give an approach to two of the expressions more affected by gender: somatization and self-harm. In parallel, these two expressions are closely related to early sexual abuse, a particular form of psychic trauma. Finally, we conclude with some sociobiological considerations related to the exposure to traumatic events.

## 5.2 Concept of Trauma

Trauma can be defined as an unbearable experience for a person's cognitive and emotional patterns. In fact, trauma poses a challenge for the identity of the individual, as it questions the relational world of the subject. [7]. To approach and understand the concept of trauma, we must consider as described by Carlson and Balenger [8] the three identifying features of traumatic events. Those inner characteristics are the negative valence of the experience, the lack of uncontrollability of the situation and the suddenness.

- The *negative valence* refers to the experience of the perception of the event as negative. Although the valence of an event is something subjective, death of a loved one or physically painful events are almost considered in all cultures as a negative experience.
- *The lack of controllability*, the perception which determines the magnitude of the experience. It is important to note that the uncontrollability of an event must reach a certain threshold to cause traumatization and is variable across individuals.
- The suddenness is considered as the core characteristic of a traumatic event.
   The suddenness of an event is an essential part of what makes and experience traumatic. Events that involve imminent threat of harm are more likely to cause overwhelming fear than experiences involving danger that is not imminent.

Because the considerable effects of traumatic experiences have negative effects on physical and emotional health, the prevalence of traumatization following such a traumatic experience is not seen in the vast majority of population. Recent studies have brought to light that general population, at least, has been exposed to one traumatic experience in their lifetime, with a range variety between studies from 28 to 90%. Frequently, as reported by those studies, the most common events being considered as a traumatic experience are the unexpected death of a loved one, motor vehicle accidents and being mugged [9].

Despite that, there are other sociocultural factors that are poorly understood or not investigated, such as gender, socioeconomic status, race/ethnicity or age. In 2016, Benjet and his colleagues [9] performed an epidemiological analysis of the presence of traumatic experiences worldwide. They looked up for more than 29 different types of traumatic experiences in a sample of 68.894 adult respondents across 24 countries. The results were impressive: over 70% reported at least a traumatic event during their lifetime, and 30.5% at least reported four or more traumatic experiences. Finally, analysing the socio-demographic predictors of traumatic exposure, they discovered that females were more likely than males to be exposed to intimate partner/sexual violence (OR = 2.3) [9].

To understand the concept of trauma, there are different itineraries to approach traumatic pathology, but not all of them consider one important part of experiencing a traumatic event: the corporal dimension.

In fact, not all the traumatic events cause a similar impact, nor they are associated with a similar symbolic significance. Thus, traumas responding to extreme experiences are hardly classified in the post-traumatic stress disorder (PTSD) diagnosis, in that they will have devastating consequences on the psyche, in the corporal experience and, as a result, in the being-in-the-world.

PTSD has attracted controversy since its introduction in 1980 as a psychiatric disorder in the third edition of the American Psychiatric Association's (APA) Diagnostic and Statistical Manual of Mental Disorders (DSM III). Since then, there have been subsequent changes, modifications and criticisms from the original classification of PTSD firstly allocated in the anxiety disorders section (avoiding or relegating the importance of some experiences such as guilty, shame or anger followed by a traumatic experience). The most polemical argument is concerning the definition of trauma or even whether it is a valid diagnosis itself.

As described by Judith Herman in 1992 [10], she defines these disorders as DESNOS (disorders of extreme stress not otherwise specified) or complex PTSD. This syndrome is defined in three dimensions: symptomatology, character traits and vulnerability to repeat harm [2]. In this way, PTSD in its definition of consequence of a traumatic event is distinguished from the chronic trauma associated with extreme horror, such as prolonged domestic violence.

The introduction of this frame expanded the diagnostic criteria in order to demonstrate the profound changes and transformation of the personality experienced by persons exposed to this extreme traumatic experience.

Attending to those new changes introduced in the definition of PTSD in the DSM V, some scientists have pointed out that the criterion A of PTSD, "exposure to a

traumatic event", is too inclusive [11]. As described by Pai and colleagues, not all stressful events involve trauma itself. Stressful events not involving an immediate threat to life or physical injuries or psychosocial stressor, such as complicated divorce or a repentant job loss, are not considered trauma under this definition [12].

In contrast, although not being conceptualized in the DSM, there is a category in the ICD-10 titled "enduring personality change after catastrophic experience".

Thus, among the symptoms included, there is a broad range of bodily symptomatology (not present in PSTD) such as diverse forms of somatization (chronic pain and digestive, conversion, sexual and cardiopulmonary symptoms) as well as an alteration of the affects and impulses, which implies, inter alia, self-destructive behaviours. In many cases, the patients experience continued headache, heartburn and urinary infections [13].

PTSD is defined as the exposure to a traumatic event leading to re-experiencing symptoms (corresponding to the reliving of the traumatic event: images, thoughts, dreams, etc.), avoidance behaviours, increased arousal in the forms of irritability, hypervigilance, concentration problems, etc. However, the DSM-IV lacks a broader definition on the types of trauma, so that any event resulting in "death or threats to life and limb" was included. The DSM 5 [14] clarifies that a traumatic event may be threats or death, serious injury or sexual violence. This is the first time sexual violence appears specifically acknowledged as a traumatic event.

A lot has been written about the definition of trauma in its two essential components: as an extreme striking event and as the human response to that event. The DSM-IV required a response accompanied by intense fear, helplessness or horror, not accepting the exposure to a traumatic event as a cause of the disorder.

Nevertheless, regarding the diagnostic criteria in the DSM-5, the criterion A2 involving "intense fear, helplessness or horror" has proved to have little utility in the diagnosis, and thus, it has been eliminated. The authors point out that the response to trauma, apart from terror or fear, may include dysphoric mood, anhedonia, negative thinking, dissociative symptoms and so on. The variability of human behaviours and expressions for distress were the reasons to drop A2 criterion in trauma definition.

There remains strong controversy on this subject, given that it has been demonstrated that in traumatic events involving physical integrity such as armed or unarmed rape, the self-perception of menace is the best predictor of PTSD symptoms [15]. Although the incidence for traumatic events is higher in men, studies have demonstrated that women have a double risk for developing PTSD [16] and present a lower rate of symptom remission.

From a pure phenomenologist perspective, some reflection could be considered in PTSD diagnosis of the multiplicity of the human response to trauma and its heart-rending experience and the bodily experience in the traumatic event [17]. In the following excerpt by the Auschwitz survivor Jean Améry (1912–1978), we approach the most humane regard of a violence and torture victim. The body, as an intimate territory, is penetrated by the monstrous, the vile and the evil. The lived body is the fuel for the visibility of a soul tormented to suicide.

The crimes committed in Auschwitz I and Birkenau during the Nazi regime in Germany overpass the limits of human cruelty. As described by Améry, all the atrocities committed marked a before and after not only in history but also in the lives of millions of people.

The real horror began, however, when the SS took over the administration of the camps. The old spontaneous bestiality gave way to an absolutely cold and systematic destruction of human bodies, calculated to destroy human dignity; heath was avoided or postponed indefinitely. (...) I must confess that I don't know exactly what that is: human dignity (...). Yet I am certain that with the very first blow that descends on him he loses something we will perhaps temporarily call "trust in the word". (...) But more important as an element of trust in the world, and in our context what is solely relevant, is the certainty that by reason of written or unwritten social contracts the other person will spare me —more precisely stated, that he will respect my physical, and with it my metaphysical, being. (...) It is like a rape, a sexual act without the consent of one of the two partners. Certainly, if there is even a minimal prospect of successful resistance, a mechanism is set in motion (...) the border violation of myself by the other, which can be neither neutralized by the expectation of help nor rectified through resistance.

This extract underlines some nuclear criteria in the traumatic event as an experience penetrating the body in full: completed rape, frequently linked to extreme emotions, experience of chaos, confusion during the event, memory breakup, absurdity, horror, ambivalence, disconcert, humiliation, despair, loss of control and help-lessness. This delineates the bodily experience through alienation and limit invasion.

# 5.3 Identity Intersections

Addressing corporality in the common experience of trauma presupposes a consideration of the gendered dimension of our experience. The sudden shock in a traumatic event and the resultant narrative disruption do not cause a shifting, nor they override gender; they rather structure common experience. These identity coordinates are analytical tools that enable us to better understand subjectivity and suffering, particularly in women. It is not that women need neither footnotes nor chapters different from the *human* but rather "both from an epistemological perspective as well as in biomedical practice, the 'normality' pattern has been and continues to be the hegemonic masculinity" [18].

Gender inequality is not determined by biological facts. This is the reason why gender perspective does not conclude nor is limited to a gender breakdown in the statistics for psychic distress prevalence and incidence. It is not about searching, describing and confirming differences between sexes but rather about explaining such differences. Gender is relational and dynamic, a structure of relations continually interacting. Thus, gender perspective implies considerations that go beyond the "mystic of numbers" and the essentialist constructions on sexual characteristics of each sex, in order to contextualize data in a well-defined social framework [19].

In fact, feminist authors denounce that the complexity of traumatic experiences of women has not been considered by the prominent model for trauma in a society divided by gender [20, 21]. Other contributions from this same perspective include the incorporation of some groups neglected by the PTSD first diagnosis, such as women and children survivors of sexual abuse [22], the reformulation of key concepts such as "coping strategies" instead of *symptoms* [23] and the warning that gender violence is a disproportionate everyday occurrence not only in war but also in peace contexts [19, 24].

Suffering intersects gender, age, ethnicity, disability, beliefs, economic status and other global processes affecting local environments. In other words, there is not a single way to suffer, and the expression and perception of pain are different even within members of the same community [25]. Nevertheless, the due consideration to particular contexts with their own cultural and identity settings, their own sources of domination and inequality, will enable us to broaden our perspective and in doing so, to better understand the traumatic event, the consequent grief and process of recovery where they unfold. As Janzen reminds us: "[...] although war trauma certainly has physical consequences and imprints, it is culturally mediated and that is where its character, causes, consequences and avenues of resolutions may be best understood" [26].

# 5.4 Identity and Corporality: Providing a Framework for Situations of Violence and Trauma

Identity is the sense of self and oneself in the world. Namely, it is the self-image in each context, as there is not only one self defining the person yet multiple selves in coexistence [17]. Thus, we understand that human bodies are recognized in diverse identities/selves in the world they live and coexist [27].

However, human beings develop the sense of being one—the sense of self—through the construction of a unique narrative identity. An identity while experienced as unique encapsulates the idea of permanence and change: projection into the future and recognition in the past [7].

Throughout history, we are reminded that the sense of self is first and foremost a bodily/corporal sense, experienced not through language but rather through body motion and sensation [28–30]. This experience of the somatosensory initial corporality will eventually form a narrative self, a sense of conscious versus the emptiness of inconsistency. A self-representation of the being in a dialectical relational process from birth, joint and reciprocal with the attachment relations, constructs and regulates identity.

The theory of attachment has many links with psychoanalytic theory, as it also delves into children's response to trauma in its origin, the body being the first vehicle of identity.

Our body is our limit, our boundary. This is how Rodríguez relates to this subject "boundaries are the areas of separation or differentiation, but also of connection of the self and the others and the world". Boundaries are configured around the relational

experience. In these areas take place the interchange, the biological and emotional nutrition that are necessary to form the mind and the self-experience [7].

Along these lines, Bowlby notes "human beings need the attachment relationship as a regulator of their emotional system for the harmonious development of the self" [31–37]. The body appears to be the first provider of identity and the first vehicle for interpersonal communication between the child and the world. Thus, through primary feelings and physiological sensations, and later with auditory and visual stimuli, children will play an increasingly important role. Bowlby accentuates that the groundwork in the first year of life consists of building an attachment relationship, and Shore notes that this is the "the affective bond of emotional communication between the child and the primary caregiver". Caregivers, in optimal conditions, help the child to identify and verbalize the affects, which are initially experienced mainly in somatic terms. Thus, the child learns to distinguish somatic experience from psychological experience [7].

This theory is based on the assumption that attachment with affective referents in childhood (mainly parents) will configure a *damaged* neurobiological structure, which would determine the adult abnormal response to trauma. From a moderate perspective, one would understand that the attachment style marks a tendency to response patterns that can be activated or not in stressful situations [17].

In this raising corporality, affection, historical condition, values and beliefs become interwoven, and social and subjective features, such as the primary identity and the generic condition, reengage.

This self is not only fluids, bones, finiteness and forcefulness, but rather it is what sets us apart from others. Dio Bleichmar maintains that the sense of femaleness is constructed in relation to the body, the attachment to others and love as the core of the identity [38]. In line with this, Husserl claims that the self only exists if embodied. Thus, following Merleau-Ponty, we see ourselves not as *having* but as *being* bodies.

Human bodies, apart from being expiring and *deteriorable*, following Cristóbal Pera, they are vulnerable, suffer trauma and become "injured bodies". We are finite bodies exposed to a host of misery, trauma and pathology. Thus, the abused, raped or beaten body is deeply harmed in its bodily identity, leaving the self-helpless, defenceless like a 3-year-old boy. Freud addresses the body and comes to the conclusion that the *ego* is a differentiation from the *id*, due to the contact of the body with the outside world. In Freud's words, the *ego* comes first and is mainly a corporal self [39].

Identities are relatively stable. There is a tendency to defend the coherence of the oneness, a tendency that preserves it from the normality and everydayness. There are only some experiences, such as the traumatic events, that may cause dramatic changes [17].

The traumatic event (or the recurring of the multiplicity of configurations of violence and trauma) as extreme questioning events will resolve key aspects of this identity. In this way, trauma not only acts as a questioning event of the self and the world, but also it can be inscribed as a defining event, a provider of meaning. In fact, the traumatic and painful event unleashes an experience of discontinuity which

implies a denarrativization of the body. Thus, it provokes a disruption in the narrative conscience, through which everydayness is configured.

The process of integration of the traumatic experience involves the global readjustment of the person's self-perception in the attempt to relocate the memories of the event. Paul Steinberg, Auschwitz survivor, describes the difficulties to reconcile identities: before Auschwitz, in the camp and afterwards as a parent. Sometimes the force and intensity of these elements of life are so powerful that it becomes nuclear in the identity of the person.

The trauma resultant identity not necessarily has a negative foundation. Betty Makoni is an African woman, a child abuse survivor, activist and founder of the Girl Child Network in Zimbabwe, Africa. Betty talks about how girls cope with trauma and the symbol of a tree that is born on the head of a woman whose roots are nurtured by their coping potential [40]. Once again, there are no intrinsically good or bad things but useful, adaptative and nonadaptative.

Along the lines of managing the own resources and the attribution of new meanings to the events as factors for the protection of the resultant identity, Kimberly Theidon reaffirms the important role of women raped in war as heroines in the defence and protection of their children, leaving the humiliation and stigma images behind. Anngwyn St. Just notes that the victim's conscience, if we do not strengthen resilience resources and capacity, may have a negative effect on physical and mental health [41].

Pérez [17] notes that a trauma-centred identity only is troublesome if linked to images of vulnerability and powerlessness, dependent relationships, help seeking and grumbling, hindering the full development of the person. On this basis, Jean Améry asserted that psychiatry, labelling the survivors as "damaged" or "sick", questions their moral legitimacy as privileged witnesses and makes them mere objects of cure and compassion. Thus, their voices are discredited, which is useful for the political class and to society at large.

Importantly, in working with people affected by psychological trauma, we must be especially sensitive and consider the risk of possible invalidation of the subjective experience and the subsequent revictimization [42]. In terms of gender violence but also applicable to other victims, Valiente [43] insists that blaming them for their vulnerability furthers revictimization even when victims need to understand the elements operating in their vulnerability, be it rooted in unveiled conflicts, fantasies, desires or unadaptive expectations. Chu [44] recommends working in a therapeutic alliance with the patient to prevent self-destructive actions and contribute to the understanding of the mechanism that makes them more vulnerable to revictimization.

Thus, it would be easy to think that *trauma* is embodied as an experience altering identity. However, it is in that immediacy of life where boundaries and pain awaken the body from its comfortable lethargy where we should broaden choice towards the power of being afresh and where lie infinite possibilities of experiencing living.

# 5.5 Violence, Experience and Care

Despite the policies made by the public health organizations, such as the ONU—Women, the National Institute of Health of the United States or the Sex/Gender Methods Group of the Cochrane group, concerning the inclusion of gender-based

analysis in the methodological research aspects, not so many mainstream work and studies consider a gender perspective in their research.

Indeed, and related to the study of psychological differences presented by men and women, not so many studies consider or at least try to explain the psychological effects of distress in relation to the position of women and men have in the society. In particular, an approach to trauma must need to look into these factors, among others: sexual triggers for trauma, diversity in experience, dealing with suffering and expressing suffering, as well as gender-based analysis and methodological considerations. Following this approach, in this section, I try to cover the research and contributions that show the relevance of gender in violence, experience and trauma care.

### 5.5.1 Violence(s)

The Declaration of the Elimination of Violence Against Women celebrated in 1993 by the United Nations defines violence against women as "any act of gender-based violence that results in, or is likely to result in, physical, sexual or psychological harm or suffering to women, including threats of such acts, coercion or arbitrary deprivation of liberty, whether occurring in public or in private life" [45].

As described in the literature, certain groups are more likely to be exposed to interpersonal violence, and consequently, exposed to painful and traumatic experiences [46–48]. The fact that the main threats to individuals and communities are inscribed in some specific areas and territories proves that violence is not fortuitously distributed. Marginalized populations living in poverty, violence against women, racism, homophobia and other forms of oppression underline this. Some studies have shown that living in a disadvantage neighbourhood contributes to a higher risk for the development of psychological disorders [46]. This is not a new thing, social studies have focused in the risks presented by lower-income places, concluding that poverty and interpersonal violence are predictors directly related to mental health [47, 48].

As a matter of fact, the proposition maintained in the model of PTSD, which claims that the world is a safe place until exposed to a traumatic event, has been questioned. According to Burstow [23], this could be true for a white, middle-class, straight man, given that trauma is not a neutral but political experience.

Following the Galtung conflict triangle [49], there are three subtypes of violence. Firstly, direct violence is visible and clear, given that this type of violence is behavioural. Secondly, structural violence results from an unequal access to resources, material or otherwise, such as education, health, peace and, consequently, power and opportunities. Lastly, cultural violence refers to those aspects of violence that may be used to justify or legitimize direct or structural violence. Gender violence has its roots in culture—in fact, one of the senses of the word "violence" in Spanish, *violencia*, is "the act of raping a woman" (DRAE)—and in terms of its consequences, it emerges both direct and structurally. To illustrate this, there is supporting data: 1161 women violations are reported every year (Ministerio del Interior, Spain 2011). That means three a day, one every 8 h. Thus, structural violence, as Bourdieu [50] reminds us, is always perpetrated in countless of small and big acts of everyday violence that in most cases continue with impunity.

In the case of internal armed conflict, albeit they affect the whole population, there is evidence of gender dimension regarding grades of violence and suffering. While men are exposed to the risk of torture and mass killing, women are more likely to be victims of sexual violence and other types of violence, a violence that does not cease when conflicts officially end and normally occurs in the intimacy, in the private life. In 2001, Amnesty International denounced that violence against women is not incidental in war yet a weapon deliberately used for different purposes, like the spread of terror, the destabilization of society or as a means for rewarding soldiers and for extracting information. Such violence includes different assaults of sexual nature: rape and gang rape, sexual abuse, slavery, mutilation, forced impregnation and prostitution. In the gruesomeness of war, the way the logics of terror operate is made invisible. In fact, the broadcasting of numberless cases of rape and forced pregnancy in Rwanda and the former Yugoslavia drew international attention to the magnitude of this form of cruelty against women in armed conflict.

In her work on the Haitian repression during and after the coup d'état in 1991, Erica Caple James [51] examines the influence of gender and its psychosocial aftereffects. In this conflict, women were targeted on account of their active role in politics as well as their small-scale business role. They were also punished on behalf of their husbands, fathers and brothers, deemed as surrogate wives, taken as "sacrifical substitutes". Their vulnerability to the attacks of different military groups flowed from the responsibilities towards their children and their business activities in local markets, which kept them visible and reachable. The different forms of torture were not only aimed at the delegitimization and bodily disempowerment through pain but also at destroying the production and reproduction of the victim, breaking social ties with the family and community through the violation of social norms. Broadly, the after effects of the traumatic event were embarrassment, humiliation and social isolation from the family and community. Raped women were frequently abandoned labelled as "the rapist's wives"—by their partners and families. Alienated from their social group, they moved to other areas to rebuild and restore their lives, and in most cases, their only resource to their survival was the reappropriation of their sexuality as a means to make a living. In the case of male victims of violence, the feelings of shame and humiliation were rooted in their incapacity to protect their families and in the degrading treatment and torture.

# 5.5.2 Experiences

Conception, construction, manifestation, symbolization and management of suffering are also intersected by gender. As stated by Távora [52], in some determined conflicts, the existing relations between perception and resolution and mental distress or mental wellbeing of women, are determined by the position the dominant system grants them—subordination. In other words, women's distress is framed in a social psychopathology issue.

Inequality between men and women is intertwined by coercive elements, which are eminently corporal, and result in internalized relational models integrated in our

subjectivity. According to the author, femininity makes us in such an identity that is centred in a being to be perceived, observed in a continuous state of bodily insecurity and symbolic alienation. In this identity, appearance has a fundamental value. Adolescent women, when bodily changes begin and secondary sexual characteristics appear, face their sexuality not through an encounter with their bodies but through the stripping gaze of the other [52]. This is what Basaglia [53] calls "beingfor" and "being in the being-of-others", which defines a socialization environment for women reinforcing the importance of attachment and the emotional. Following Rosaldo [54], to this we can add that: "It now appears to me that woman's place in human social life is not in any direct sense a product of the things she does, but of the meaning her activities acquire through concrete social interaction".

From a bodily experience, women tend to represent their bodies through instrumentality, dissociation and tension. The body is an instrument, the object to perform social, reproductive and productive functions. Alongside this, motherhood is the core where most women build their identities on. Motherhood and bodily reality are the constitutive elements of a dissociated reality where sexuality and sensuality coexist in tension [55]. In this same way, Vance [56] narrates the tension produced in the experience of sexuality as a sphere of exploration, pleasure and performance, yet also how this experience can lead in turn, to helplessness, repression and risk of sexual violence.

Narratives with their own emphases, (in)consistencies, silence and oblivion are connected to the possibilities of enunciation of women and the social impact of their experiences. Silences are pervaded by fear, embarrassment, and in the social sense, women stop talking. Soriano [57] states that the proportion of sexually assaulted girls is 10% higher if compared to boys. These results have been replicated in different samples, revealing a higher incidence of sexual assault in women than in men [58, 59], with an increased risk for sexual abuse and assault in late adolescence [59].

It follows that in the case of girls, most of the times, the assailant is someone in their immediate environment and in 70% of the cases the assailant is a close relative, while in boys the assailant is usually a stranger. This fact allows boys to defend themselves, run, hate or despise the assailant as a means of protection akin to war situations where the enemy is perfectly defined. When there is an attachment, kinship or friendship relation between the assailant and the victim, as it happens with girls, there is hardly a way to that defence. Silence reflects how gender-based stereotypes work. Kurvet-Käosaar [60] illustrates this fact in his work on autobiographies by Baltic women during the Stalinist regime. It addresses the difficulties in reporting, giving testimony, considering their limits of self-representation, particularly with issues socially tabooed, such as sexual violence.

With regard to words, as stated by Bertaux-Wiame [61], there are differences both in the way women and men narrate and in the signification of the narration. Women recall the events in a different way, and in more detail, they bind the act of narration to their social experience (family and community networks); thus, they tend to narrate about others [62]. They express feelings, and they conceive fear from everydayness, therefore granting the testimony a special meaning. This is justified

by that *time* in most women is organized according to reproductive events and a different learning process for the emotional [62].

When women speak, they not only do so through words. The work of Kimberly Theidon [63] shows the great variety in response to traumatic experiences and stressful events. In her research on women who had been sexually assaulted and raped by the government forces in Ayacucho (Perú) during the internal war that shook the country, several women asked her: "Why should we remember everything that happened? To martyr our bodies –nothing more?" In these communities, the language of memory is corporal, and women carry the burden of pain and suffering in their communities. This research describes the belief that sorrow can be transferred to the child through breast milk. With the term *la teta asustada* (the frightened teat), the researcher sought a way of capturing how the powerful negative emotions alter the body itself and how through blood in utero and breast milk (*the milk of sorrow and worry*) they could transmit this sorrow to their babies. In this division of emotional labour, women embody the history [64].

According to Cyrulnik [65], two shocks are required to cause trauma: a shock in reality (damage, humiliation, loss) and a shock in the representation of reality, that is, in what others say about the person after the assault. Sabine Dardenne, kidnapped in 1996 by a paedophile, stated that she later wrote her story as a means of retrieving her story from under the media spotlight, to express her pain, to put it out and to prevent judges from granting shorter sentences for good conduct to paedophiles [65]. Other women, such as the Grandmothers of the Plaza de Mayo, continue with demonstrations as a reminder, for social recognition and state reparation.

#### 5.5.3 Trauma and Care

The acknowledgement of sociocultural factors is determining the way the problem may be seen and nested and consequently determines the subsequent approach [66]. Thus, these studies provide sex-disaggregated reference data, but the aim in this data collection should be to further elucidate what elements determine such outcomes. Eliana Suárez [67] compiles and questions some of these statements. For instance, several studies suggest that women are more likely to suffer PSTD than men. One may wonder to what extent can this data be related to differences between women and men in emotional and biological response to interpersonal traumatic events or rather consider that such data is mapping the high incidence of gender-based violence. Some other issues must still be addressed, such as the possible overrepresentation of women in the diagnosis of PSTD due to the gender differences in care-seeking behaviour after exposure to a traumatic event. At the same time, one may consider that gender intersection with factors such as disability, poverty, discrimination and ethnicity could be the triggering cause for the higher vulnerability of women to PSTD. But one point is clear: the literature has shown that some sociodemographic and cultural factors, such as being a woman, ethnicity, living in a low-income neighbourhood, lower education level and direct exposure to interpersonal violence are factors directly associated with a higher risk for the development of psychopathology. Moreover, the risk is greatest when we introduce a traumatic experience into the equation.

Sometimes, being sick or suffering is not enough to be cared for or assisted. It has to be socially accepted that the person needs to be cared for. The decision whether to care for or not is based on the societal expectancies in the group and case given. The decision to care for and assist depends on global criteria through which communities construct the situation basing on their past experience, their collective appropriation thereof and the resources available to them [68].

The hegemonic masculinity model [69] constitutes a hindrance in men's health given that due to their different way of configuring, dealing and solving their health issues, it blocks the access to care services. Men have been socialized to be active, in control, defensive and strong, look after themselves, endure pain, use their body as a tool and never ask for help and cope. This is a model that encourages self-sufficiency, recklessness, competitiveness or omnipotence. It also requires undergoing certain testing to prove they are on their way to manhood. The predominance of the mainstream male education reinforces the idea that care and self-care are feminine, while values such as strength, courage and boldness are considered masculine. The accident rate and the disproportionate prevalence of men in the suicide rate illustrate this hypothesis [70].

Furthermore, the predominance of a cultural ideology based on "the feminine as the vulnerable" has contributed to reinforce such way of looking at and deem women's body and health. As an example, in 2017, a polemic came to public attention related to the meaning "weak sex". This term was defined by the DRAE as "refers to women", and, in contrary, "strong sex" was defined as "a group of men". The Real Academy of Language (DRAE) had to modify the meaning as the polemic brought to light in different social media.

Societal attitudes, particularly the low status of women, also play a significant role in hindering women from getting the care that they need [19]. Sometimes this social construction implies that males' complaints are taken more seriously, while in the case of women, there is a tendency of looking for psychosomatic explanations for their complaints. Some studies have focused that women tend to have more help-seeking behaviours or attitudes than men [71].

Moreover, as stated by Sau [72], in most of the cases, traditional psychotherapies not only had failed in providing suitable answers to women affected by gender violence, but also they had reinforced misogynist myths and, therefore, condemned women to solitude and despair, when these women paradoxically turned to psychotherapy to obtain relief [72].

Complex phenomena need to be observed and constructed in a transdisciplinary integrated way, taking into account the dialectical relationship underlying in the diverse constitutive dimensions of humanity (biological, psychological, social, cultural, etc.). The intended outcome of such a framework is an approach to the social context in the traumatic event, providing a more comprehensive vision of individual and social pain. A historical overview shows us how the trauma paradigm has been directly linked to social movements such us pacifism and women's rights movement.

Therefore, one of the current challenges is to consider the elements that have been sidelined and engage in social justice underlying in traumatic events.

# 5.6 Risk Factors for the Development of Psychopathology Following Traumatic Experiences

As described before, potential reactions following a traumatic event can vary across individuals, presenting a variety of symptoms such as increased emotional symptoms (those involving anxiety, irritability, anger, hopelessness or emptiness), somatic symptoms (energy impairment, dizziness, tinnitus or blurry vision) and other symptoms like sleep difficulties [73].

Recent studies exploring the prevalence of traumatic events in the general population showed rates from 28 to 90% [73]. When considering differences presented by gender, some studies have focused that there are differences related to the inner experience of the traumatic event. Psychological trauma can have devastating consequences on emotion regulatory capacities. Indeed, women, as compared with men, evaluated traumatic events more negatively (for all types of trauma), and the relationship between trauma and mental disorder symptoms was also stronger in women [74]. In the case of PTSD, this relation is even more deeper and has been associated regardless the diagnosis criteria, population or methodological variables [75].

During the last decades, the study of traumatic events related to the risk for the development of psychiatric disorders has emerged. Since that, the presence of traumatic events has been associated with an increased risk for several mental disorders, such as anxiety disorders, eating disorders, depression, PTSD and psychotic disorders [76–80]. Some studies have focused on the evaluation of three categories of risk factors for the development of psychopathology: pre-traumatic factors (including sociodemographic and biological factors, such as age, gender, race, education and predisposing biological factors), peri-traumatic factors (including duration, severity or perception of traumatic events) and post-traumatic factors (access to social network resources and cognitive and physical activities) [73]. Analyzing those factors by gender, they reported more traumatic experiences in males, but despite this, females are exposed to more sexual trauma and are more likely to develop PTSD.

In fact, abuse and PTSD share some common symptoms: intrusive and unpleasant memories, dissociations and flashback sequences. However, a common feature in abuse is the presence of patterns revealing a direct attack to corporality, expressed in different forms: in its pleasure receptor functions; in its capacity of intimacy, conception and nurture; in fully complying the self and other's biological destiny; and in the creation of meaningful relationships based on body privacy [81].

Recent studies have provided robust evidence of the association between child-hood trauma experiences and the development of a wide range of psychiatric disorders [76, 77]. As seen before, many of the psychiatric disorders that have been linked to adversity in childhood, for instance, depression and anxiety disorders,

including PTSD, show in general higher prevalence among adult women compared to men of the same age [81, 82].

Frequently, those manifestations are usually hidden under the expression of dissatisfaction, and in some cases submission and subjection, through physical pain. The biography of these women is inscribed in the body and its pains, wherein lies a possible identity conflict. Only through this overabundance of the body is it possible to move beyond the severe and disciplining domain of the reason in order to acquire "consciousness through pain" [83].

The relationship between the risk for the development of psychosis and childhood trauma has been proposed. A growing number of methodologically sound studies have examined the exposure to child maltreatment (i.e. sexual abuse, physical abuse, emotional/psychological abuse and neglect), peer victimization (i.e. bullying) and experiences of parental loss and separation as risk factors for psychosis and schizophrenia [84]. A meta-analysis published in 2012 evaluating the association of childhood trauma and psychosis found that trauma was significantly associated with an increased risk for psychosis with an OR = 2.78 (95% CI = 2.34–3.31) [84]. Moreover, this relationship has been associated with a more symptom severity of schizophrenic-positive symptoms (hallucinations and delusions) and also with the severity of childhood neglect with the presence of negative symptoms [85].

In fact, children who have been traumatized do not fit the criteria for PTSD. Those kids frequently are tagged as aggressive or suspicious, receiving diagnoses such as "oppositional defiant disorder" or "disruptive mood dysregulation disorder", among others [86].

Considering the possible effects that could cause a continuous exposure to such a traumatic event during the childhood, it is not rare that individuals present somatic and physical manifestations. A study published by Waldinger and colleagues [87] shown that in the case of women, childhood trauma influences adult levels of somatization by fostering insecure adult attachment. Adult victims of sexual abuse see their bodies alienated, as a place owned by other, a settlement for the other, as if other person articulated their limbs [81].

Janet [30] hypothesized that memories of the traumatic event that are stored outside the person's awareness may contribute to dissociation and somatization in the form of hysteria. Along these lines, Van der Kolk [86] advocates the consideration of dissociation, somatization and other affect regulation disorders as late-emerging manifestations of trauma. The link between trauma, dissociation and somatization is empirically supported. In fact, Pribor, Yutzy, Dean and colleagues [88] found that 90% of the women with somatization disorder have a history of physical, emotional or sexual abuse, and 80% of them had a history of some form of sexual abuse.

It is common they express discomfort towards their bodies—dispossession: "I know that somehow this body is mine, but I don't feel it as such" [43]. In Freud's words, *unheimlich*, this literally means "not-at-home" and was translated as unfamiliar, uncomfortable and eerie. James Chu [44] notes that abuse survivors tend to be ambivalent about self-care, and they tend to neglect in basic aspects of their physical health.

Psychiatrist Roland Summit explained in 1988 that every society, not only the directly affected, protects the secrecy of sexual abuse of children. In the same way as the victim is silenced, forced to self-punishment, dissociation and identification with the aggressor, as a society, we are inclined to unthinkingly deny the facts. Jennifer Freyd insists that there are many social interests in children abuse not being revealed and consequently, a great difficulty to discover the real figures [3].

Yet, as Pat Odgen comments, we cannot learn to take care of ourselves if we are not in contact with the needs and requirements of our physical self: our physical identity, our bodily identity and what we physically are [89]. This invasion of corporality at early ages is associated with multiple mental disorders in adulthood in the form of depression, anxiety, substance abuse, self-harm, multiple somatization, borderline personality and post-traumatic stress disorder, among others. It is not surprising that these children use their bodies to release tension and manifest their impulses through self-harm [43]. There are findings that suggest that trauma and sexual abuse, more than being linked to a specific disorder, constitute a nonspecific risk factor for psychiatric morbidity [7]. On the basis of these results, it seems clear that the experience of such a traumatic event marks a major shift in the experience and perception of the people's inner world.

# 5.7 Psychopathologic Manifestations Through the Female Body: Homo Dolorous (Somatization) and Self-Harm

Powerless, weakness and silenced. Structural violence directly or indirectly against female identity has led to an individual (identity) subjectivity shaped in a corporal mask, as an eggshell, filled with obstacles, interruptions, tricks and pain. There is high occurrence of women with painful multi-symptom disorders without a clear organic cause, in which the body symptoms become the emerging of the unperceived: a body complaining to seek affect, support and attention. This situation has been labelled under the diagnosis of "unspecific somatic symptoms". A body that becomes sick to say no to imperatives, to channel dissatisfaction, and also a body complaining as a possible means to discover other pathways [90].

Somatization, fairly common among women, refers to the tendency of experiencing stress through physic symptoms, bodily concerns and/or experiencing one-self mainly in physical terms. Psychological and physical issues are not integrated. The belief that somatization can be related to trauma as the defensive action of dissociation is not new [7].

Female identity is assimilated to the being-for-others, where the nuclear is the relational and the assigned in the androcentric culture, assuming a secondary role of our own lives and putting aside an intimate story of desire, choices, transcendence and creation. This requires the self to exist, the possibilities of being to be renewed and the possible alterations to be produced.

As described by Judith Herman, the real conditions of women's lives have been hidden in the private life sphere, creating a powerful barrier where no one can come in, and letting the histories of women's lives invisible and silenced [2].

### 5.7.1 Behaviour in Borderline Patients: Self-Injury

Self-harm behaviour is more prevalent in women than in men, and it is present in 75% of borderline patients, which for the majority of people has an onset in adulthood and is highest between the age of 18 and 24 [91].

According to patients with BPD, the reason for self-harm is in some cases related to numbness: "when we don't feel anything special, we don't feel our bodies". Human beings are in constant need of self-perception even if they fall back again yielded in a quiet lethargy. This intimate experience of physical pain brings them the certainty of the existence of their bodies, the certainty that there is more than emptiness. The way they experience life is outside the traditional forms of managing the body in our culture [38]. The wounds, the blood and the powerlessness denote that they are alive, yet through all this, we can clearly see the expressive function of the body, a pain seeking to be seen and responded. Even though these behaviours alarm relatives and specialists and may be seen as evidence of suicidal intentionality, self-destructive conducts not necessarily represent a connecting factor to suicide.

Many self-destructive behaviours have self-punishment motivations [92] and at times are closely related with an experience of relief in painful and unbearable emotional states [93]. However, the connection between self-harm and suicidal intent is complex.

The occurrence of the self-harm conducts rate, as said before, is in general 75%, but adding conducts like having unsafe sex with strangers or combining alcohol with antabuse may bring the self-harm conducts rate to 90%. In all this, we can see an aggression to the body, a direct act against life, yet it is true that borderline patients put their bodies at risk so they can experience life. And thus, against social boundaries, there is the individual chosen limit [83]. The term self-harm describes an act through which a person intentionally injures or harms themselves. Among the self-injury behaviours, we can find cutting or severely scratching the skin (80%), hitting (24%), burning or scalding (20%), banging the head (15%) and biting (7%) [92]. If the skin is the damp-roof wrapper, the cut provides an outlet orifice, an exit for pain.

A patient wrote about the self-injury impulse: "I want to cut myself. I want to see pain, because it's the most physical way to show emotional pain. I want to cut myself, cut myself and show it, show it. Taking it out, but taking what? Just pain".

The intentionality in the self-harming behaviour has been broadly studied. Self-harm has different motivations: to release the pain and tension inside (59%), to punish themselves (49%), to control their feelings (39%), to have control over their bodies (22%), to express feelings of hate and rage (22%) and to find themselves alive instead of feeling numb (20%) [94].

Although the conceptualization of the borderline personality and its causes are still unaccounted for, most of the studies suggest a significant relationship between infantile trauma and borderline symptoms and between childhood sexual abuse and the development of borderline personality disorder [95]. The risk factors that determine borderline patients often include loss, history of sexual and physical abuse,

deep negligence or emotional abuse, gender violence witnessing, drug abuse or criminality in progenitors.

Without further analysis on the factors influencing the resultant seriousness in abuse, a research conducted by Silk et al. [94] shows that continued sexual abuse in childhood was the best predictor of serious borderline symptoms, such as parasuicide, chronic helplessness and chronic handicap, transitory paranoia, regression and intolerance to solitude [91]. Furthermore, sexual abuse by parents and emotional negligence in childhood, both involved in the genesis of borderline personality disorder, are closely related with self-harm behaviour [96].

# 5.8 The Hidden Wounds: Understanding Biological Epigenetic Alterations Following Traumatic Experiences

The presence of traumatic experiences in early stages of childhood has been associated to a wide number of alterations affecting neurodevelopmental and mental health. Social changes occurring in the environment during the early stages of life have been proven to generate stable changes; most of these changes are affected by a dysregulation of the gene expression through epigenetic mechanisms.

In order to understand the underpinning biological mechanisms involved in early-life stress events, and due to ethical reasons that we will further describe in an upcoming other chapter of this book, these studies are being carried out using animal models. The main objective of these studies in animal models is to understand the basic inner changes produced by long-term effects in signalling paths and in brain pathophysiology. In fact, and despite the controversy associated with research malpractice, studies in animals have been essential to understand underlying mechanisms involved in biomedical research, as in the case in neurodegenerative or in psychiatric diseases [97].

Despite the scientific interest in investigating the effects of social stressor as an interactive influence in human behaviour—an area well studied by sociology and human ecology—the mechanisms underlying cerebral processes are less understood. In fact, and particularly in psychiatry research, the lack of disease biomarkers is a big handicap to understand the mechanisms associated to psychiatric diseases. A biomarker is a characteristic that can be objectively measured and evaluated as an indicator of biological or pathological processes [98]. As a result, biological psychiatry research has been introduced as an attempt to understand the biological roots, components and processes of a wide diversity of psychiatric diseases. It also aims to stress its importance for understanding basic processes affected in those diseases.

One of the most important goals for future works in psychiatric research is to find specific biomarkers of diseases to improve the accuracy of diagnosis and, therefore, improve patient outcomes and quality of life. Despite some advances have been made in of other medical areas, such as cardiovascular diseases, psychiatric disorders pose particular challenges.

Nonetheless, we need to consider that psychiatric diseases are complex disorders involving multifactorial genetic and environmental interactions. Psychiatric disorders cannot be addressed by studying individual aspects separately but rather as a complex interaction of multifactorial processes as a whole. The study of psychiatric disorders, in addition to the study of the human being, would require from a holistic global approach that could account for and consider the whole context.

Hence, knowing that human research studies involve such important interactions as sociodemographic and cultural interactions, the translational animal models of stress have provided to control those potential confounding factor that can interact in an ecological set. This set allows researchers control of external factors and enables the study and dissection of basic neurobiological mechanisms at levels that are currently inaccessible to human studies [99].

For this reason, there have been proposed diverse models of early social deprivation and stress-induced models in non-human primates and rodents. Among them, we can find techniques such as deprivation paradigms (i.e. food, water or movement deprivation), exposure to adverse experimental environment, social isolation or fear and anxiety-based paradigms (i.e. exposure to a predator) [100].

Some experimental studies done in animal models have focused on studying the impact of early life stress in genetic or immune alterations. The effects produced by providing maternal stressors during pregnancy range from production of immune inflammatory cytokines and antigens to an increase on the levels of pro-inflammatory genes in the brain and in the intestinal microbiota. That pro-inflammatory activity has been associated with a higher risk of developing a large number of mental disorders [101].

Some studies have shown that maternal separation from its offspring led to a wide range of biological alterations, such as an increased macrophage reactivity or increased core temperature [102, 103]. But one of the most important discoveries is that in both models, there is a common share of a long-term upregulation of proinflammatory cytokines. This data suggests that there is a common link that results from early-life stressors in mother and offspring interaction.

In fact, early-life social environment stressors can induce stable changes that influence neurodevelopment and mental health. Human research studies have explored early-life adversity experiences, also revealing that these experiences can have a persistent impact on gene expression, in the immunity system and in behaviour through epigenetic mechanisms.

Recent studies have also focused in understanding the neurobiology of childhood trauma. In a review published in 2017 by Danese and colleagues [104], it was found that cumulative exposure to childhood trauma was associated with higher levels of inflammation 20 years later and that this association is already detectable even during childhood years. Moreover, they described a set of mechanisms and processes that are affected by childhood trauma exposure; among which we find early-life immunity activation and brain maturity process changes, glial priming changes and finally the alteration of the hypothalamic pituitary adrenal (HPA) axis in response to stress exposure.

Individuals with a history of childhood trauma show greater amygdala reactivity to emotional stimuli and, consequently, may more often experience activation of the inflammatory response [105]. In higher proportion, they also show reduced HPA axis signalling, and, as a result of the impairment of this inhibitory pathway, they show chronic elevation in inflammation levels. There are other evidences that support the existence of neural dysregulation of essential neurotransmitters, such as monoamines and glutamate. These changes may bring long-term alterations, increasing the risk for the development of psychopathology.

It has been exposed that maternal stress during pregnancy can alter foetal development through the placenta, which in fact regulates the foetal environment [106]. Moreover, this stress exposure has been associated with an increased risk of epigenetic alterations, such is the case of the dysregulation of the HPA axis and consequent DNA methylations. Aberrant DNA methylations have been linked with a wide variety of stress-related psychiatric disorders like depression, schizophrenia and bipolar disorder. Among several candidate genes, glucocorticoid receptor (NR3C1), serotonin transporter (SLC6A4) and brain-derived neurotrophic factor (BDNF) can be found [106–108].

In the light of these results, it seems clear the link between early-life adverse events and epigenetic alterations. The association of childhood trauma to the development of a variety of psychopathological disorders has been extensively proven in the last few years.

To conclude, I would like to add some words by psychiatrist Bessel van der Kolk from his book, *The Body Keeps the Score: Brain, Mind, and Body in the Healing of Trauma* [78]:

Trauma is a complex interaction of the imprint made by the experience in our whole body, mind and brain. The imprint generated has direct consequences for how the body reacts, and how the human organisms manage to survive, producing changes to adapt our mind and brain perceptions and overcome the situation.

#### 5.9 Conclusions

Sexual abuse and related disorders—such as eating disorder, PTSD, somatization, psychosis and others—are categories in which the body is directly attacked, transformed and frequently negated. In fact, clinical research has proven that the experience of traumatic events can produce a wide range of biological and psychological changes, among them, the development of psychiatric disorders and the alteration of important cerebral processes.

When considering starting therapy with a person who has experienced a traumatic event in the past, the importance of the body should not be disregarded in isolation, as this would mean deficiency and incompleteness. In individuals exposed to trauma, the political, social and relational context in which the traumatic event occurred is also crucial. Similarly, gender perspective is fundamental in addressing these issues with patients. If we disregard this, we will be disparaging patient's subjectivity.

For the first time in its history, the DSM includes in its last edition a specific section on gender, giving this construct a deep importance when it comes to instilling a new psychopathology. A need on this matter would be to conduct research that furthers understanding the way trauma affects the subjective reality of gender, experienced, naturally, through embodiment.

Trauma occurs in the body and is revealed through the body. It occurs in the private life of women and children, where the silence is imposed by the fear and the stigma. Policies incorporating gender perspective and the empowerment of women against the taboo and silence of such atrocities should be supported by the social and political media. Only through tolerance and respect for every human body where the dignity of human life is embodied, we can hope for better times.

### References

- Freud S. The aetiology of hysteria. In: The standard edition of the complete psychological works of Sigmund Freud, Volume III (1893–1899): Early Psycho-Analytic Publications. London: Hogarth Press; 1962. p. 187–221.
- Herman JL. Trauma and recovery: the aftermath of violence—from domestic abuse to political terror. London: Hachette; 2015.
- 3. Freyd JJ. Abusos sexuales en la infancia: La lógica del olvido. Madrid: Morata; 1996.
- Adichie CN. The danger of a single story. Barcelona: Penguin Random House Grupo Editorial; 2018.
- 5. Merleau-Ponty M. Phénomènologie de la perception. Paris: Gallimard; 1945.
- Fritz GK. The evolution of psychosomatic medicine. Brown University Child Adolesc Behav Lett. 2000;16(4):8.
- Rodríguez B, Fernández A, Bayón C. Trauma, disociación y somatización. Anuario de Psicología Clínica y de la Salud. 2005;1:27–38.
- 8. Carlson EB, Dalenberg CJ. A conceptual framework for the impact of traumatic experiences. Trauma Violence Abuse. 2000;1(1):4–28.
- Benjet C, Bromet E, Karam EG, Kessler RC, McLaughlin KA, Ruscio AM, et al. The epidemiology of traumatic event exposure worldwide: results from the World Mental Health Survey Consortium. Psychol Med. 2016;46(2):327–43.
- 10. Herman J. Trauma and recovery. New York: Basic Books; 1992.
- Rosen GM, Spitzer RL, McHugh PR. Problems with the post-traumatic stress disorder diagnosis and its future in DSM V. Br J Psychiatry. 2008;192(1):3–4.
- 12. Pai A, Suris AM, North CS. Posttraumatic stress disorder in the DSM-5: controversy, change, and conceptual considerations. Behav Sci (Basel). 2017;7(1):7.
- 13. Hidalgo R. Daño psíquico en las víctimas de violencia de género. Jornada "Actuar frente a la violencia de género". Pamplona; 2011.
- American Psychiatric Association. Diagnostic and statistical manual of mental disorders. 5th ed. Washington, DC: APA; 2013.
- Kilpatrick DG, Saunders BE, Amick-Mc Mullan A. Victim and crime factors associated with the development of posttraumatic stress disorder. Behav Ther. 1989;20:199–214.
- Breslau N. Gender differences in trauma and posttraumatic stress disorder. J Gend Specif Med. 2002;5(1):34.
- 17. Pérez P. Trauma, culpa y duelo. Bilbao: Desclée de Brouwer SA; 2006.
- 18. Rohlfs I. El género como herramienta de trabajo en la investigación en epidemiología y salud pública. In: Esteban ML, Comelles JM, Díez M, editors. Antropología, género, salud y atención. Barcelona: Bellaterra; 2010.

19. Esteban ML. Introducción a la Antropología de la Salud: Aplicaciones teóricas y prácticas. Bilbao: OSALDE: Asociación por el Derecho a la Salud; 2007.

- 20. Wasco SM. Conceptualizing the harm done by rape: applications of trauma theory to experiences of sexual assault. Trauma, Violence Abuse. 2003;4(4):309–22.
- 21. Burstow B. Toward a radical understanding of trauma and trauma work. Violence Against Women. 2003;9(11):1293–317.
- 22. Herman J. Trauma and recovery. New York: Harper Collins; 1992.
- 23. Burstow B. A critique of posttraumatic stress disorder and the DSM. J Humanist Psychol. 2005;45(4):429–45.
- 24. Logan S. Remembering the women in Rwanda: when humans rely on the old concepts of war to resolve conflict. Affilia. 2006;21(2):234–9. https://doi.org/10.1177/0886109905285772.
- 25. Kleinman A, Desjarlais R. Violence, culture and the politics of trauma. In: Kleinman A, editor. Writing at the margins: discourse between anthropology and medicine. Berkeley: University of California Press; 1995. p. 712–189.
- 26. Janzen JM. Text and context in the anthropology of war trauma: the African Great Lakes region 1993–95. Suomen Antropologi. 1999;24(4):37–57.
- Pera C. Pensar desde el cuerpo. Ensayo sobre la corporeidad humana. Madrid: Triacastela;
   2006.
- 28. Damasio A. Descartes' error: emotion, reason and the human brain. London: Vintage; 1994.
- 29. Damasio A. The feeling of what happens: body and emotion in the making of consciousness. London: Heinemann; 1999.
- 30. Janet P. L'évolution psychologique de la personalité. Paris: Éditions Chanine; 1929.
- 31. Bowlby J. The mankind and breaking of affectional bonds. I aetiology and psychopathology in the light of attachment theory. Br J Psychiatry. 1977;130:201–10.
- 32. Bowlby J. La Separación Afectiva. Barcelona: Paidós; 1985.
- Bowlby J. Vínculos Afectivos: Formación, Desarrollo y Pérdida. Madrid: Morata; 1986.
   p. 90–105.
- 34. Bowlby J. Developmental psychiatry comes of age. Am J Psychiatry. 1988;145:1–10.
- 35. Bowlby J. El Vínculo afectivo. 2nd reprint. Barcelona: Paidós; 1990a.
- 36. Bowlby J. La pérdida afectiva. Barcelona: Paidós; 1990b.
- 37. Bowlby J. Postcript. In: Parkes CM, Stevenson-Hinde J, Marris P, editors. Attachment across the life cycle. London and New York: Tavistock/Routledge; 1991. p. 293–8.
- 38. Sáenz M. Cuerpo y Género. In: Martínez O, Sagasti N, Villasante O, editors. Del pleistoceno a nuestros días: Contribuciones a la Historia de la Psiquiatría. VIII Jornadas de la Sección de Historia de la Psiquiatría de la AEN. Madrid: AEN; 2011. p. 101–16.
- 39. López-Ibor JJ. Actas Esp Psiquiatr. 2011;39(3):3-118.
- 40. Shinoda J. Sabia como un árbol. Barcelona: Kairós; 2012.
- 41. St Just A. Trauma: una cuestión de equilibrio. Un abordaje sistémico para la comprensión y resolución. Buenos Aires: Alma Lepik; 2010.
- 42. Valiente C, Cantero D, Villavicencio P. Reflexiones del suicidio en el contexto de violencia de género. In: Fernandez JL, Fuentenebro F, Rojo A, editors. Suicidio. Madrid: Sociedad de Historia y Filosofía de la Psiquiatría; 2008. p. 299–320.
- 43. Cantero MD, Villavicencio P. Corporalidad y trauma. In: Fuentenebro F, Rojo A, Valiente C, editors. Psicopatología y fenomenología de la corporalidad. Madrid: Sociedad de Historia y Filosofía de la Psiquiatría; 2005. p. 141–57.
- 44. Chu JA. Rebuilding shattered lives. The responsible treatment of complex post-traumatic and dissociative disorders. New York: Wiley and Sons; 1998.
- 45. UN Commission on Human Rights. The elimination of violence against women A/RES/48/104. 19 December 1993.
- Santiago CD, Wadsworth ME, Stump J. Socioeconomic status, neighborhood disadvantage, and poverty-related stress: prospective effects on psychological syndromes among diverse low-income families. J Econ Psychol. 2011;32(2):218–30.

- 47. Baskin-Sommers AR, Baskin DR, Sommers I, Casados AT, Crossman MK, Javdani S. The impact of psychopathology, race, and environmental context on violent offending in a male adolescent sample. Personal Disord. 2016;7(4):354–62.
- Sabariego C, Miret M, Coenen M. Global mental health: costs, poverty, violence, and socioeconomic determinants of health. In: Mental health economics. Cham: Springer; 2017. p. 365–79.
- 49. Galtung J. Cultural violence. J Peace Res. 1990;27(3):291–305.
- 50. Bourdieu P. La dominación masculina. Barcelona: Anagrama; 2000.
- 51. James EC. The political economy of 'trauma' in Haiti in the Democratic Era of Insecurity. Cult Med Psychiatry. 2004;28(2):127–49.
- 52. Távora A. Pensando sobre los conflictos y la salud mental de las mujeres. Área 3. Suppl. Género y Salud Mental. 2003.
- 53. Basaglia F. Mujer, Locura y sociedad. Mexico: Universidad Autónoma de Puebla; 1983.
- 54. Rosaldo MZ. The uses and abuses of anthropology: reflections on feminism and cross-cultural understanding. Dermatol Sin. 1980;5(3):400.
- 55. Hourcade C. Cuerpos fragmentados: Las mujeres y el conflicto con sus cuerpos. Mujeres y salud. Tu cuerpo: personal e intransferible. CAPS. 2008. p. 24.
- 56. Vance C. Placer y peligro: explorando la sexualidad femenina. Madrid: Talasa; 1989.
- 57. Soriano MJ. El abuso sexual en la infancia y su repercusión en la edad adulta. Mujeres y salud. Monográfico Salud Mental. El trasfondo del malestar. CAPS. 2010. p. 29.
- 58. Fedina L, Holmes JL, Backes BL. Campus sexual assault: a systematic review of prevalence research from 2000 to 2015. Trauma Violence Abuse. 2018;19(1):76–93.
- 59. Finkelhor D, Shattuck AM, Turner A, Hamby SL. The lifetime prevalence of child sexual abuse and sexual assault assessed in late adolescence. J Adolesc Health. 2014;55(3):329–33.
- 60. Kurvet-Käosaar L. Vulnerable scriptings: approaching hurtfulness of the repressions of the Stalinist regime in the life-writings of Baltic women. In: Festic F, editor. Gender and trauma: interdisciplinary dialogues. Newcastle upon Tyne: Cambridge Scholars Publishing; 2012.
- 61. Bertaux-Wiame I. La perspectiva de la historia de vida en el estudio de las migraciones interiores. In: Marinas JM, Santamarina C, editors. La Historia Oral: Métodos y experiencias. Madrid: Debate; 1993.
- 62. Delgado C. Análisis del testimonio como fuente oral: género y memoria. In: Viejas y nuevas alianzas entre América latina y España. XII Encuentro de Latino Americanistas españoles. Santander, 21 al 23 de septiembre 2006.
- 63. Theidon K. Entre Prójimos: El conflicto armado interno y la política de la reconciliación en el Perú. Lima: Instituto de Estudios Peruanos; 2004.
- 64. Theidon K. La teta asustada: una teoría sobre la violencia de la memoria. Ideele. 2009;191.
- 65. Allué M. La piel curtida. Barcelona: Bellaterra; 2008.
- Sáenz M. Psicopatología y género: crónica del resentimiento. Norte de Salud Mental. 2012;42:7–8.
- 67. Suárez EB. Surviving the "Sasachacuy Tiempu" (difficult times): the resilience of Quechua Women in the Aftermath of the Peruvian Armed Conflict. Thesis. Factor-Inwentash Faculty of Social Work. Toronto: University of Toronto; 2011.
- 68. Comelles JM. De la ayuda mutua y de la asistencia como categorías antropológicas: una revisión conceptual. Trabajo social y salud. 2000;35:151–72.
- 69. Bonino L. Masculinidad, salud y sistema sanitario: el caso de la violencia masculina. In: Ruiz Jarabo C, Blanco P, editors. La violencia contra las mujeres. Prevención y detección. Madrid: Díaz de Santos; 2004.
- Bergara A, Riviere J, Bacete R. Los hombres, la igualdad y las nuevas masculinidades. EMAKUNDE-Instituto Vasco de la Mujer; 2008.
- 71. Thompson AE, Anisimowicz Y, Miedema B, Hogg W, Wodchis WP, Aubrey-Bassler K. The influence of gender and other patient characteristics on health care-seeking behaviour: a QUALICOPC study. BMC Fam Pract. 2016;17(1):38.

 Bosch Fiol E, Ferrer Pérez VA, Alzamora Mir A. Algunas claves para una psicoterapia de orientación feminista en mujeres que han padecido violencia de género. Feminismo/s. 2005;6:121–36.

- Sayed S, Iacoviello B, Charney D. Risk factors for the development of psychopathology following trauma. Curr Psychiatry Rep. 2015;17(8):1–7.
- 74. Kucharska J. Sex differences in the appraisal of traumatic events and psychopathology. Psychol Trauma Theory Res Pract Policy. 2017;9(5):575–82.
- Ramikie TS, Ressler KJ. Mechanisms of sex differences in fear and posttraumatic stress disorder. Biol Psychiatry. 2018;83(10):876–85.
- 76. Nanni V, Uher R, Danese A. Childhood maltreatment predicts unfavorable course of illness and treatment outcome in depression: a meta-analysis. Am J Psychiatr. 2012;169(2):141–51.
- 77. Mandelli L, Petrelli C, Serretti A. The role of specific early trauma in adult depression: a meta-analysis of published literature. Childhood trauma and adult depression. Eur Psychiatry. 2015;30(6):665–80.
- 78. Van Winkel R, van Nierop M, Myin-Germeys I, van Os J. Childhood trauma as a cause of psychosis: linking genes, psychology, and biology. Can J Psychiatry. 2013;58(1):44–5.
- 79. Van Nierop M, Viechtbauer W, Gunther N, van Zelst C, de Graaf R, ten Have M, et al. Childhood trauma is associated with a specific admixture of affective, anxiety, and psychosis symptoms cutting across traditional diagnostic boundaries. Psychol Med. 2015;45(6):1277–88.
- 80. Moulton SJ, Newman E, Power K, Swanson V, Day K. Childhood trauma and eating psychopathology: a mediating role for dissociation and emotion dysregulation? Child Abuse Negl. 2014;39:167–74.
- 81. Stupiggia M. El cuerpo violado. Aproximación psicocorporal al Trauma del Abuso. Santiago de Chile: Cuatro vientos; 2010.
- 82. Angold MB, Marcelle C. Una perspectiva evolutiva con consideración especial del trauma psicológico infantil. In: Narrow WE, First MB, Sirovatka PJ, Regier DA, editors. Consideraciones sobre la edad y el género en el diagnóstico psiquiátrico. Barcelona: Elsevier Masson; 2009.
- 83. Fernández JL. Las vivencias de la corporalidad en el siglo XXI: una aproximación desde el mundo del arte y las nuevas tecnologías. In: Fuentenebro F, Rojo A, Valiente C, editors. Psicopatología y fenomenología de la corporalidad. Madrid: Sociedad de Historia y Filosofía de la Psiquiatría; 2008. p. 69–86.
- 84. Varese F, Smeets F, Drukker M, Lieverse R, Lataster T, Viechtbauer W, et al. Childhood adversities increase the risk of psychosis: a meta-analysis of patient-control, prospective- and cross-sectional cohort studies. Schizophr Bull. 2012;38(4):661–71.
- 85. Bailey T, Alvarez-Jimenez M, Garcia-Sanchez AM, Hulbert C, Barlow E, Bendall S. Childhood trauma is associated with severity of hallucinations and delusions in psychotic disorders: a systematic review and meta-analysis. Schizophr Bull. 2018;44(5):1111–22.
- 86. der Kolk V, Bessel A. Theoe body keeps the score. New York: Viking; 2014.
- 87. Waldinger RJ, Schulz MS, Barsky AJ, Ahern DK. Mapping the road from childhood trauma to adult somatization: the role of attachment. Psychosom Med. 2006;68(1):129–35.
- 88. Pribor EF, Yutzy SH, Dean JT, et al. Briquet's syndrome, dissociation and abuse. Am J Psychiatry. 1993;150:1507–11.
- 89. Ogden P, Minton K, Pain C. Trauma y cuerpo. Bilbao, Desclée de Brouwer SA; 2011.
- 90. Távora A. El cuerpo como lugar de expresión de los conflictos. In (coord.): Muñoz Muñoz AM, Gregorio Gil C, Sánchez Espinosa A. Cuerpos de mujeres: miradas, representaciones e identidades. Granada: Universidad de Granada; 2007. p. 143–162.
- 91. Millon T. Trastornos de la personalidad en la vida moderna. Barcelona: Masson; 2006.
- 92. Shearer SL, Peters CP, Quaytman MS, et al. Intent and lethality of suicide attempts among female borderline inpatients. Am J Psychiatry. 1988;145:1424–7.
- 93. Soloff PH, Lis JA, Kelly T, et al. Self-mutilation and suicidal behavior in borderline personality disorder. J Personal Disord. 1994;8:257–67.
- 94. Silk K, Lee S, Hill E, Lohr N. Borderline personality disorder symptoms and severity of sexual abuse. Am J Psychiatry. 1995;152(7):1059–64.

- 95. Zanarini MC, Frankenburg FR, DeLuca CJ, et al. The pain of being borderline: dysphoric states specific to borderline personality disorder. Harv Rev Psychiatry. 1998;6:201–7.
- 96. Dubo E, Zanarini M, Lewis R, Williams A. Childhood antecedents of self-destructiveness in borderline personality disorder. Can J Psychiatr. 1997;42:63–9.
- 97. Insel TR. From animal models to model animals. Biol Psychiatry. 2007;62(12):1337–9.
- Biomarkers Definitions Working Group. Biomarkers and surrogate endpoints: preferred definitions and conceptual framework. Clin Pharmacol Ther. 2001;69:89–95.
- Sandi C, Haller J. Stress and the social brain: behavioural effects and neurobiological mechanisms. Nat Rev Neurosci. 2015;16(5):290–304.
- 100. Patchev VK, Patchev AV. Experimental models of stress. Dialogues Clin Neurosci. 2006;8(4):417–32.
- 101. Danese A, Baldwin JR. Hidden wounds? Inflammatory links between childhood trauma and psychopathology. Annu Rev Psychol. 2017;68(1):517–44.
- 102. Coe CL. Developmental psychoneuroimmunology revisited. Brain Behav Immun. 1996;10(3):185–7.
- 103. Cole SW, Conti G, Arevalo JM, Ruggiero AM, Heckman JJ, Suomi SJ. Transcriptional modulation of the developing immune system by early life social adversity. Proc Natl Acad Sci U S A. 2012;109(50):20578–83.
- 104. Danese A, Lewis SJ. Psychoneuroimmunology of early-life stress: the hidden wounds of childhood trauma? Neuropsychopharmacology. 2017;42(1):99–114.
- Danese A, van Harmelen A. The hidden wounds of childhood trauma. Eur J Psychotraumatol. 2017;8(sup5):137584.
- 106. Sosnowski DW, Booth C, York TP, Amstadter AB, Kliewer W. Maternal prenatal stress and infant DNA methylation: a systematic review. Dev Psychobiol. 2018;60(2):127–39.
- 107. Peng H, Zhu Y, Strachan E, Fowler E, Bacus T, Roy-Byrne P, et al. Childhood trauma, DNA methylation of stress-related genes, and depression: findings from two monozygotic twin studies. Psychosom Med. 2018;80(7):599.
- 108. Çöpoğlu ÜS, Igci M, Bozgeyik E, Kokaçya MH, İğci YZ, Dokuyucu R, et al. DNA methylation of BDNF gene in schizophrenia. Med Sci Monit. 2016;22:397–402.

# Part II

# Sex and Gender as a Multidimensional Concept

# Improving Our Science in Research with Sex- and Gender-Based Analysis

6

## Maria Haarmans

### Abstract

WHO has identified gender as a "critical determinant of mental health and mental illness". In the psychosis field, however, while there has been an increased focus on sex differences, little is known about how gender impacts the risk of psychosis, its expression (e.g. content of hallucinations), coping or recovery. In this chapter, I argue for sex- and gender-based analysis (SBGA). I outline the literatures on gender and mental health; describe SGBA, related constructs and corresponding scales; and delineate some of the barriers to conducting SGBA in psychosis research.

### 6.1 Introduction

"From the moment of birth, if not sooner..." writes Kaschak, "...the body is gendered" (1992, p. 44). "There is no existence in our culture prior to and separate from gender. Almost invariably, the first question parents ask, even before birth, is: 'Is it a boy or girl?'" (p. 45).

In the health field, sex and gender are increasingly being recognized as important determinants and indispensable aspects of research both nationally and internationally [1–3]. The Canadian Institutes of Health Research's Institute of Gender and Health (2012) promotes "...the integration of gender and sex as routine considerations in all domains of health research" (p.vi). In the UK, government health policy has incorporated gender as a key determinant of health, service need and service

planning [4]. The World Health Organization (WHO) has identified gender as a "critical determinant of mental health and mental illness" (Undated) and its 2004 report on *Gender in Mental Health Research* states: "Integrating gender considerations in health research contributes to better science and more focused research, and, consequently, to more effective and efficient health policies and programmes" (p. 2).

However, since Elizabeth Nasser and colleagues [5] criticized the status of schizophrenia research, more than a decade ago, for "the profound neglect of the role of sociocultural factors ..." and the role of gender in particular, very few advances have been made with regard to gender despite (p. 351). This neglect that is particularly obvious in the surge of research examining the relationship between trauma and psychosis [6]. While differences in sexual abuse rates and impact between males and females in the general population have been noted [7–9], sexand gender-based analysis (SGBA) in psychosis research is lacking. A striking example of the lack of interest in gender within the psychosis field can be found in a special Women's Mental Health Series in the Lancet Psychiatry (January 2017) devoted to sex *and* gender where the only paper in the series on psychosis omits any discussion of gender [10]. Nasser and colleague's observation that people diagnosed with schizophrenia are considered "genderless" unfortunately still rings true [5].

One probable reason for the relative lack of attention to gender is that current conceptions of schizophrenia continue to emphasize the role of biogenetic factors. However, sociocultural and psychological factors are also clearly important. For example, studies in several countries have observed elevated rates of a diagnosis of schizophrenia in ethnic minority or migrant populations compared to ethnic majority or "native" populations, especially in Black ethnic groups [11, 12]. Some researchers have suggested that experiences of discrimination, social capital and social defeat may contribute to risk of psychosis [13]. Several forms of social adversities have found to be associated with the development of psychosis: racism [14], socioeconomic disadvantage [15], urbanicity [16, 17], early parental separation [18, 19], bullying at school [20, 21] and childhood sexual and other types of abuse [6].

Psychological approaches particularly cognitive behavioural models of psychosis have implicated the role of core beliefs about self, others/world, future in the maintenance of delusional beliefs and hallucinated voices and emphasize links

<sup>&</sup>lt;sup>1</sup>The term 'psychosis' is increasingly being used in preference to 'schizophrenia' due to the poor scientific validity and reliability of the schizophrenia classification (Bentall, 2004; 2009; French & Morrison, 2004) and thus is used in this paper to encompass schizophrenia, schizoaffective disorder, and first episode psychosis diagnoses. Generally, the term 'psychosis' refers to the 'symptoms' or anomalous phenomena such as hallucinated voices or unusual beliefs. Increasingly research focuses on these experiences specifically as opposed to diagnoses. In this paper, I will therefore use the terms 'psychosis' or 'psychotic' to refer to the anomalous phenomena as described in psychiatry and am using the term 'schizophrenia' where researchers have referred specifically to this diagnosis or to refer to the field in general.

between life experience and/or trauma and psychotic phenomena [22–24]. For example, Morrison [25] suggests negative beliefs about the self and the world are thought to be developed in response to trauma and are predicted to mediate the distress experienced in relation to psychotic phenomena. Birchwood et al. [26, 27] demonstrated parallels between the experience of subordination by voices and subordination and marginalization in the social world. Hayward et al.'s review [28] found a correspondence between voice hearers' relationship with their voices and interpersonal relationships in the social world.

While the aforementioned studies underline the importance of context, life experience and sociocultural factors in the aetiology, development and expression of psychotic phenomena, none conduct SGBA. SGBA takes into account the role of both biogenetic and sociocultural factors by utilizing an analysis of the biological construct of sex and the sociocultural construct of gender.

Though there has been an increase in research on sex differences in schizophrenia, it is still relatively neglected in comparison with research on other forms of mental distress such as depression. Barker-Collo and Read [29] report a *Medline* analysis estimated that only about half of all articles on "schizophrenia" up to 2010 even record sex and a scant 2.5% analyse research findings by sex. And when sex differences have been examined, the focus has been on the supposed biological base of such differences. More recently, Riecher-Rössler and colleagues [30] reiterate this neglect and criticize the few studies that do report sex and gender for lacking methodological rigour (e.g. lack of representative community-based population samples and control groups).

In order to conduct SGBA, we must take into account both sex *and* gender for, as Nowatzki and Grant [1] argue: "Sex is a poor proxy for gender, as it is not capable of capturing the full range of social, political, and economic forces that affect health" (p. 265). Several researchers have suggested that examining gender could reveal, in addition to increasing our understanding of the heterogeneity in expression and subjective experience of psychotic phenomena, clarification of some of the reported sex differences [3, 31–33] such as why more women than men appear to hear voices, findings which are observed in both clinical [34–36] and nonclinical populations [37, 38]. Much of the sex difference research, to date, is purely descriptive without identifying the mechanisms responsible for producing any such differences [39, 40]. A gender analysis could possibly contribute to understanding aetiology and illuminate mechanisms involved elucidating the variability in some reports of sex differences (e.g. prevalence) [41].

An interesting example of research that demonstrates the importance of using SGBA is illustrated by Lewine [32] where he cites results of a study by Daniel and colleagues [42] who examined sex differences in cerebral blood flow using positron emission tomography (PET) scanning. They found a higher rate of blood flow in women than men (all healthy individuals), but when femininity and masculinity were measured (using the Bem Sex-Role Inventory: Bem [43]), high blood flow related far more strongly to femininity than biological sex.

In this paper, I make a case for the importance of sex- and gender-based analysis (SBGA), which remains overdue in schizophrenia research, outlining the literatures on gender and mental health. First, I review relevant theoretical constructs for conducting sex- and gender-based analysis and describe how to conduct SGBA.

# 6.2 "Sex" and "Gender": What's the Difference? Constructs and Measures for Conducting Sex- and Gender-Based Analysis (SGBA)

Several methodological problems plague gender research in the schizophrenia field. One of the most fundamental is the conflation of the terms "sex" and "gender" used inconsistently and/or interchangeably in the literature [5, 32, 44]. As Johnson et al. [2] point out: "This conflation leads to confusion about the contributions of sex and gender to health, and missed opportunities for developing appropriate medical interventions and policy responses" (p. 1).

Sex refers to: "the biological characteristics such as anatomy... and physiology...that distinguish males and females" ([45], p. 8). Gender refers to "...the array of socially constructed roles and relationships, personality traits, attitudes, behaviours, values, relative power and influence that society ascribes to two sexes on a differential basis..." ([45], p. 14).

### 6.2.1 What Is SGBA?

SGBA originated in international development research. Due to significant evidence that biological, economic and social differences between women and men contribute to differences in health risks, health services use, health system interaction and health outcomes [46, 47], research began integrating a gender and sex perspective.

Health Canada [47] has defined SGBA as:

... an approach which systemically inquires about biological (sex-based) and socio-cultural (gender-based) differences between women and men, boys and girls, without presuming that any differences exist. The purpose of SGBA is to promote rigorous sex/gender-sensitive health research, which expands understanding of health determinants in both sexes, in order to provide knowledge which can result in improvements in health and health care. Genderblind science fails to account for disparate life trajectories that are influenced by genetic endowment, environmental exposures and social and political environments.

SGBA incorporates multiple levels of analysis from the micro-individual level to the macrosocial level integrating other social determinants of health that interact with gender:

SGBA is meant to be applied within the context of a diversity framework, that attends to the ways in which determinants such as ethnicity, socioeconomic status, disability, sexual orientation, migration status, age and geography interact with sex and gender to contribute to exposures to various risk factors, disease courses and outcomes. Using a SGBA lens brings

these considerations into focus and can help to formulate research, policies and programs that are relevant to the diversity of the Canadian populace. [47]

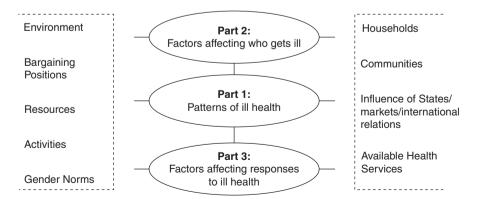
It is increasingly being recognized that an intersectional lens must be integrated within SGBA as culture along with multiple social identities such as age, class and sexuality shape the meaning of gender.

Nasser [48] has advocated approaches to researching women's [and men's] mental health that:

...take into account gender differences between men and women in sociocultural context including differences in pay, social status, political power, burdens of domestic care, and mothering, relationship inequalities and rates of domestic violence as well as gender differences in social pressures and expectations. (p. 25)

Conducting SGBA occurs throughout all phases of the research process starting with clearly differentiating and defining the concepts of sex and gender [47]. First, it is essential to include gender and sex in the research question(s) and/or hypotheses. The literature review must examine the extent to which past research has taken gender or sex into account. Using representative samples is also very important in order to be able to conduct SGBA as well as collect data that are disaggregated by sex, a major methodological barrier in schizophrenia research. Whether conducting quantitative or qualitative methodologies, using an analytic approach that captures gender- and sex-based factors is a very important part of the process in addition to considering diversity factors as they interact with sex and gender and affect exposures to various risk factors, illness course and outcomes.

In order to conduct sex- and gender-based analysis, researchers not only examine sex differences but pay attention to the broader theme of gender, gender relations, institutionalized gender and the larger social context as demonstrated in Fig. 6.1. This diagram, developed by the Gender and Health Group at the Liverpool School of Tropical Medicine, University of Liverpool, for researching health problems and



**Fig. 6.1** Gender analysis framework (source: Liverpool School of Tropical Medicine, Gender and Health Group, University of Liverpool, Reproduced with permission [49])

services, provides an excellent framework for SGBA that can also be applied to psychosis research. Multiple levels of gender (the interactional, the organizational/institutional and the cultural) [50] are represented. A gender analysis makes explicit the social, cultural, historical and political context of the lives of research participants combining micro-, meso- and macro-levels of analysis as shown in Fig. 6.1. This framework offers a range of approaches to assess the relationship of gender to a particular health problem, issue or system. It also reveals how gender guides the research methodology to be employed. Parts 1, 2 and 3 involve three stages of gender analysis. In the first stage, Part 1, gender-related differences in patterns of ill health (or "health outcomes data") are examined: who gets ill (i.e. men and women of different ages, socioeconomic and ethnic groups), what types of illness women and men get, when women and men become ill (e.g. time of year) and where women and men become ill. Parts 2 and 3 provide guidelines for investigating the interplay of gender and social, cultural and economic factors that affect health and responses to ill health. It is suggested that examination of these factors may require contextualized, descriptive and analytical sources of information dictating qualitative, participatory and/or mixed research methods where perceptions, attitudes and subjectivity are of interest. Each of the factors listed on the left of the matrices—environment, activities, bargaining position, resources and gender norms—is an area of enquiry to be examined in the context of each of the levels of society, e.g. households, communities and states/markets/international relations, available health services or contexts listed to the right of the matrix. "Environment" refers to women's and men's living and working context including the general social and economic milieu. "Bargaining positions" denotes decision-making power within gender relations. Gender differences in women's and men's access to and control over "resources" such as money, transport, time, information, political power and influence are also an important consideration in this analytic framework. "Activities" represents activities of daily living including what women and men do at home and at work. These are based on culturally prescribed roles and include:

- "Productive" roles, i.e. paid work or production of goods for subsistence or sale
- "Reproductive" roles, i.e. domestic tasks including cooking, cleaning and caring for children and sick people
- "Community" roles, i.e. participating in various tasks associated with managing community organizations and operating and maintaining community services (Liverpool School of Tropical Medicine, Gender and Health Group, University of Liverpool, undated).

Different activities carry different mental and physical health risks. "Gender norms", often implicit, are the beliefs, prescriptions and proscriptions for women and men's capacities, characteristics, social behaviours, roles and interests [49]. This framework incorporates the four core concepts of SBGA, (1) sex, (2) gender, (3) diversity and (4) equity, as outlined by Clow et al. [46]. Examining the intersection of other social hierarchies with gender is a necessary aspect of approaching gender as a multidimensional construct.

Marsh [51] has criticized mental health services for ignoring the context of individual's lives, and in particular women with severe mental illness who, due to *gender norms*, are impacted by the burden of caring for others, often prioritizing their needs above their own, placing more emphasis on their relational environment which can both undermine health and act as a social buffer to stress. Examining such differences in life context has been neglected in schizophrenia research. Using the above framework for SGBA in psychosis research has utility for exposing the possible impact of these variables on well-being.

### 6.2.2 The Constructs

## 6.2.2.1 Gender: A Multidimensional Construct

Recent conceptualizations of the feminine and masculine have moved beyond a simplistic understanding of global and opposite personality traits based on a unifactorial, bipolar model to a multidimensional and multifactorial construct [52, 53] operating "...on multiple levels including the subjective and intrapsychic, the interactional, the organizational and institutional and the cultural" (p. 306) [50]. Various dimensions of gender have been identified: gender-typed personality traits [43, 54], gender-related interests, global gender role behaviours [55], masculinity ideology [56], gender role conflict [57], gender role strain [58, 59], gender role stress [60], gender role conformity [61, 62], gender identity [53] and femininity ideology [55]. In order to represent the complexity of gender, research must, therefore, address gender as multivariable.

Knaak [50] suggests delineating three overarching dimensions for the purposes of research: the subjective (e.g. man/woman/transgendered); the cultural (e.g. masculinities/femininities) and the institutional (e.g. social-structural). She argues that this multidimensional interpretation demands that "...gender cannot be adequately understood in isolation from other social hierarchies" (p. 306) and thus it is important to examine how the dimensions of class and race, for example, shape and interact with gender. Another obvious implication of the multiplicity of gender for research design is the need to utilize several measures as any one gender measure may tap only a small portion of the gender construct [52].

Clinical psychology has paid scant attention to issues of gender [63], while a robust literature examining gender exists in the social sciences and within specialized developmental, social, women's, men's and counselling fields of psychology. Several constructs, with corresponding measures (albeit not an exhaustive list), generated from these fields are defined below. I would like to emphasize that in specifying several gender scales here, my intent is not to minimize the significance of qualitative methodologies in investigating gender. In fact, I believe they are just as important as they are particularly suited to capturing context, complexity and nuance and for this reason may be preferable as suggested by some researchers [64]. Furthermore, these measures, as with most, are not without their limitations (see Cuthbert [64] and Thompson and Bennett [65] for a critical review and

commentary). A lack of awareness of available gender measures may constitute another barrier to conducting SBGA in schizophrenia research.

Gender Ideology is defined as: "...an individual's internalization of cultural belief systems regarding gender roles" (p. 373) [55] operationally defined by gender role stereotypes [66]. Distinct from the identity/trait approach where one is presumed to *possess* particular sex-based personality traits, the "normative approach" considers gender norms to be culturally based and socially constructed [65]. The plural "masculinities/femininities and masculinity/femininity ideologies" denote variation of these ideologies across historical eras, social locations, institutions and cultures. One can endorse the ideology that males and females should have these sex-specific characteristics without necessarily conforming to them. The process of internalization of cultural messages may often be barely noticed on a conscious level and taken for granted as a common place and natural aspect of daily life. The term "ideology" is used to convey "...the superordinate, organizing nature of these beliefs at both the individual level and the social-structural level", (p. 19) thus constituting a belief system [59]. Levant et al. [67] developed the Male Role Norms Inventory-Revised (MRNI-R) scale to measure masculinity ideology, identifying seven factors: avoidance of femininity, negativity towards sexual minorities, selfreliance, aggression, dominance, non-relational attitudes towards sex and restrictive emotionality. The following is a sample item: "A man should not react when other people cry". Items are rated on a 7-point Likert-type scale ranging from 1 (strongly disagree) to 7 (strongly agree), with higher scores indicating higher levels of endorsement of traditional masculinity ideology. Levant and colleagues [55] also developed the Femininity Ideology Scale (FIS) which has five domains: stereotypic image and activities, dependence/deference, purity, caretaking and emotionality. An example item is "Women should dress conservatively so they do not appear loose", rated for agreement on a 5-point Likert-type scale.

Gender Schema refers to a cognitive structure in which information is processed according to sex-linked associations or "sex-typing" defined as, "The process by which a society thus transmutes male and female into masculine and feminine" (p. 354) [54]. Bem argues that these schemata form in response to societal prescriptions, norms or standards constituting socially sanctioned masculine and feminine behaviour socialized through such forces as family, school, peers and the media [68]. These norms shape gender identity and can contribute to gender role strain [69]. Bem [54] developed the Bem Sex-Role Inventory to measure sex-typed traits and gender identity. However, more recent research has criticized the scale with regard to its validity in terms of measuring self-perceived gender-linked personality traits [66].

Gender Roles "...are the behavioural norms applied to males and females in societies, which influence individuals' everyday actions, expectations, and experiences. Gender roles are expressed and enacted in a range of ways, from how we dress or talk, to what we may aspire to do, to what we feel are valuable contributions to make as a woman or a man" (p. 5) [2]. Toner et al. [70] have developed the Gender Role Socialization Scale to assess the degree of internalization of gender role messages in women (e.g. "I feel embarrassed about my own sexual desires"

rated for agreement on a 7-point Likert-type scale) and how these messages may affect health and well-being. The developers suggest that the scale "...can also be used to examine the relationship between internalized gender role messages and the various types of mental health concerns that women experience in order to facilitate the development of prevention and treatment protocols" (p. 190).

Gender Identity refers to how we see ourselves as female or male constructed in the context of strong societal messages and prescriptions for the acceptable gendered role for one's presenting sex [2]. Gender identity influences our aspirations, social interactions, behaviours, characteristics and body image [2, 71, 72].

Institutionalized Gender represents the unequal power distribution between the sexes in the political, educational, religious, media, medical and social institutions in any society through different expectations and opportunities for women and men and girls and boys, such as social and family roles, job segregation, job limitations, dress codes, health practices and differential access to resources such as money, food or political power [2].

Gender Role Stress denotes the cognitive appraisal of specific situations as stressful when individuals judge themselves as failing to live up to imperatives of traditional gender roles [73]. Corresponding scales have been developed for masculine gender role stress (MGRSS: Eisler and Skidmore [73]) and feminine gender role stress (FGRSS: Gillepsie and Eisler [74]). Each has five scales comprising particular situations that might cause stress due to a feeling of not meeting feminine or masculine gender role norms. The following are examples of items on the MGRS: "Admitting that you are afraid of something" and "Staying home during the day with a sick child". Sample items from the FGRS are as follows: "Having others believe you are emotionally cold" and "Finding that you have gained 10 pounds".

Gender Role Strain refers to the negative psychological consequences experienced by individuals when they try to live up to idealized gender role schema [59]. In this framework, gender role strain occurs partly because stereotyped gender role norms are often contradictory, unattainable and inconsistent. This construct is embedded in the overarching theoretical framework of the gender role strain paradigm developed by Pleck [59]. This paradigm "emphasizes the centrality of gender ideology as a cultural script that organizes and informs everything from the socialization of small children to the emotions, cognition, and behaviour of adults" (p. 130) [55]. Conceptions of gender roles in the gender role strain paradigm depart from the personality trait-orientations of gender role identity in that they are understood to be acquired via a "...variable process strongly influenced by prevailing gender ideologies, which themselves vary according to social location and cultural context" (p. 131) [55]. Pleck describes three subtypes of gender role strain: discrepancy strain, dysfunction strain and trauma strain.

 Discrepancy strain suggests that stereotypic gender role standard are sexist and that individuals attempt to conform to them in varying degrees. Pleck [59] hypothesized that "not conforming to these standards has negative consequences for self-esteem and other outcomes reflecting psychological well-being because of negative social feedback as well as internalized negative self-judgments" (p. 13).

2. Dysfunction strain applies to the negative consequences of those who do conform to normative gender roles such as aggression and emotional constriction as prescriptions for "masculinity", which are psychologically harmful, promote unhealthy behaviour and as such cause psychological strain. Similarly, the very same qualities that characterize depression and low social rank such as passivity, submission, perceptions of self as inferior or in an unwanted subordinate position and low self-confidence [75], for example, have been regarded as normal and desirable qualities of "femininity". These gender role norms are encouraged through socialization, "tradition" and discrimination [76–79].

 Trauma strain refers to the traumatic experience of certain groups of men whose gender role strain has been particularly severe such as war veterans, survivors of child abuse, and marginalized groups such as men of colour and sexual minorities.

When Pleck developed the gender role strain paradigm, it was within the context of a critical examination of masculinity ideologies. Since then it has been widely used as a framework for understanding and researching gender primarily in the field of men's psychology [66, 80]. Levant [80] has described the need to transform traditional notions of masculine ideology which he has termed "a new psychology of men" as "overdue and urgently needed" (p. 259) pointing to the disproportionate representation of men experiencing public and social health problems associated with the male role socialization process, such as substance abuse, homelessness, perpetration of family and interpersonal violence, estrangement or detached fathering, sex offences, fatal automobile accidents and lifestyle and stress-related fatal illnesses.

Theoretically, the gender role strain paradigm is also relevant for women as has been demonstrated by other researchers [49, 59, 81, 82]. In fact, we adopted SGBA in a recent study examining the role of core schema, gender role strain (GRS) and psychosis in ethnically diverse women using the FGRS scale described above, as it can be considered a measure of gender role strain or discrepancy. We found that women with psychosis scored higher in GRS than a comparison group and that negative core schema about self and others mediated the relationship between GRS and psychosis [44]. Consistent with recommendations to use more than one gender measure of gender noted previously [52], we also found that ethnic minority women in our study endorsed more highly the sexual purity domain of the Femininity Ideology Scale. We discuss how these findings have implications for incorporating SGBA not only into research but also practice.

Gender Role Conflict (GRC) is defined as "a psychological state in which socialized gender roles have negative consequences on the person or others [that] occurs when rigid, sexist, or restrictive gender roles result in personal restrictions, devaluation, or violation of others or self" (pp. 165–166) [83]. In other words, GRC refers to the interpersonal and intrapersonal conflict that arises from rigid enactment of traditional gender roles, from violation of gender roles or from gender role devaluations (e.g. men who freely express emotions may be devalued by

others because emotionality is associated with femininity). An example where both inter- and intrapersonal conflict could potentially occur is when men "... internalize masculine gender role ideals that encourage for example, aggressiveness, overemphasis on achievement, and relational emotional disconnection" (p. 334) [68]. Gender role conflict is related to the concepts of gender role strain and gender ideology. Patterns of gender role conflict have been hypothesized as observable negative outcomes of *gender role strain* [84]. O'Neil and colleagues [57] developed the Gender Role Conflict Scale-I (GRSC-I), an empirically derived measure of male gender role conflict or gender role strain, which has been described as "...readily complementing masculinity ideology measures" (p.151) [84]. The scale assesses men's gender role attitudes, behaviours and conflicts on four domains: restrictive emotionality, success/power/competition, restrictive affectionate behaviour between men and conflict between work and family relations. The GRSC-II was developed to measure men's degree of comfort or conflict in specific gender role conflict situations.

# 6.2.3 Methodological Issues: Barriers to Sex- and Gender-Based Analysis in Psychosis Research

# 6.2.3.1 Underrepresentation of Females in Research Studies

A significant limitation with schizophrenia research inhibiting a sex- and gender- based analysis is the underrepresentation of females in research studies [85-87] and particularly minority ethnic women [88]. Longenecker and colleagues [85] in their analysis of epidemiological incidence and non-epidemiological study participation found "...a widespread mismatch between the incidence of schizophrenia in females and their participation in research" (p. 242). They cite the incidence rate of 1.4 male schizophrenia patients to every female patient, or 58% males, taken from McGrath and colleagues recent schizophrenia meta-analysis [89]. Their analysis reveals that this imbalance is exaggerated in non-epidemiological studies where 66% of research participants are men. They report that this overrepresentation of males in the literature has been consistent over the last two decades. Focussing on incidence of firstepisode psychosis, Iacono and Beiser [90, 91] describe an excess of males in most studies and report that in many instances, the male-to-female ratio among study participants exceeds 3 to 1, which they attribute to a higher incidence of schizophrenia in males than females.

# 6.2.3.2 Aggregated Data/Controlling for Sex

A further factor in schizophrenia research inhibiting sex- and gender-based analysis is that most studies do not provide information on sex or gender separately; where they do in some of the few studies where large numbers of women have been recruited, researchers have "controlled for sex" rather than treating women and gender as important areas to explore [87, 92, 93].

# 6.2.3.3 Sex Bias in Diagnosis/Sampling Bias

Sex bias in both diagnosis and sampling confound the actual rates of incidence and prevalence. For example, women in older age groups are at higher risk of developing psychosis than men thus male-to-female incidence ratio studies should ideally include participants of all ages [94]. Studies that are limited to inpatients may also promote sampling bias due to the overrepresentation of men. Aleman and colleagues [94] suggest this overrepresentation is partly due to a less favourable course of the disorder for the male sex. They also suggest that men are more likely to be admitted due to violence and aggression, behaviours related to gender stereotyped norms. Psychosocial aspects of gender role norms may be partly related to this overrepresentation. For example, Walker and Lewine point out that male patients are more likely than female patients to display antisocial behaviour and have police contact and criminal records leading to the perception by treatment providers and families that males are more aggressive and threatening. Conversely, female patients are viewed as more helpless, withdrawn and depressed. They suggest that these perceptions in addition to self-perceptions of men and women (women are more likely to view themselves as ill, as needing treatment and to seek and comply with treatment) partially influence whether a person is in treatment, particularly an inpatient setting. Seeman [95] and Falkenburg and Tracy [96] in their review of sex differences have also pointed to higher expectations of families for sons with regard to education and achievement than daughters resulting in higher expressed emotion (EE) in families towards sons and perceptions of greater need for treatment for sons.

In addition, some authors have also suggested that due to more women experiencing co-morbid affective symptomatology, women are predominantly diagnosed with schizoaffective disorder, and it may be more difficult to assign categorical diagnoses to women than to men [97, 98].

Epidemiological research adopting SBGA in schizophrenia is an important factor in the reduction of methodological artefacts.

### 6.2.3.4 Gender in Context

Another major methodological challenge in conducting SGBA involves how to incorporate the multiple social categories and determinants, such as ethnicity, social class, sexual identity, age and culture that intersect with gender and impact the distribution of health and illness within and across populations [71]. Researchers advocating SGBA highlight the need to include social and biological determinants which overlap and work together to produce health but at the same time acknowledge both the conceptual and analytical challenges this creates. Researchers are increasingly improving ways to do this. Johnson and colleagues [71] describe some promising models that facilitate investigation of both biological and multiple social influences in a single study. For example, they recommend employing (1) intersectional analyses which acknowledge a person's multiple social identities and (2) multilevel and systems modelling as they can simultaneously analyse both individual-level and group-level factors that impact health and disease. An in-depth discussion of these approaches is beyond the scope of this chapter suffice it to say awareness of available analytical models to address some of these challenges is a helpful first step in conducting SBGA in schizophrenia research.

# 6.3 Gender: A Critical Determinant of Mental Health

# 6.3.1 Institutionalized Gender: Social-Structural Level Oppression

Emerging evidence indicates that the impact of gender in mental health is compounded by its interrelationships with other social, structural determinants of mental health status, including education, income and employment as well as social roles and rank. There are strong, albeit varying links between gender inequality, human poverty and socioeconomic differentials in all countries [3].

Referring back to the definition in the first section of this paper, "institutionalized gender" refers to distribution of power between the sexes at the system level within political, educational, religious, media, medical and social institutions in any society. These institutions shape the social norms that delineate different expectations and opportunities for women and men such as social and family roles and practices, job limitations, for example, and differential access to resources such as money, food or political power. Such differential opportunities and access may lead to differences in health risks, health services use, health system interaction and health outcomes for men and women [2, 3, 46].

We have known for quite some time that inequalities and subordinate group status affects mental health [3, 99]. In *The American Journal of Psychiatry* almost 40 years ago, Carmen et al. [99] pointed out that the:

...link between women's disadvantaged status and their mental health creates an obligation for mental health professionals to understand how the social context contributes to the origin and persistence of the problems of their patients. (p. 1319)

With increasing evidence of this link, particularly research emphasizing the role of trauma, social and ethnic inequalities in psychosis, a lack of sex- and gender-based analysis is conspicuous [11, 14]. This section underlines the relevance for conducting micro-, meso- and macro-levels of analysis through SGBA in psychosis research.

# 6.3.1.1 Gender-Specific Determinants

WHO's 2004 Gender in Mental Health Research Report outlines several gender-specific determinants of mental health such as gender-based violence (physical, sexual, psychological), gender-based income disparity, unpaid labour and lower social rank. In their review of sex differences in schizophrenia, Falkenburg and Tracy [96] cite studies that demonstrate the differential gender-exposure and risk patterns which disproportionately affect men and women with psychosis. For women these include sexual abuse, socioeconomic disadvantage and duty to assume responsibility for care of others [3, 76]. Other researchers have also reported that women with serious mental illness are also at a greater risk for revictimization and for posttraumatic stress disorder [100]. Falkenburg and Tracy [96] point out that despite lower fertility rates than community samples, over 50% of individuals with a schizophrenia diagnosis become parents with male partners often absent and

approximately one-third losing custody of their children. Single parenting has been identified by WHO [76] as a risk factor for living in poverty and an especially high risk for poor physical and mental health.

# 6.3.1.2 Impacts of Familial Gender Role Expectations

Gender-specific risk factors for men with psychosis include different responses from relatives [41] where differential gender role expectations lead to, for example, more consistent and severe criticism from relatives (or high emotional expression (EE)) which is associated with increased relapse and negatively impacting illness course [95, 96]. Several studies examining high EE report differential responses and attitudes of relatives towards men and women with psychosis [34]. For example, in their review, Falkenburg and Tracy [96] identified lower parental tolerance of symptomatic behaviour and sense of responsibility for caring for men, higher levels of fear and conflict due to higher rates of aggression in men, increased guilt and self-blame and lower attendance of therapy in families of men. Even when controlling for symptomatology, gender role expectations of parents influenced hospital outcomes of their sons or daughters [101].

Al-Issa [101] cites studies where differential gender role expectations for men and women and lower social status ascribed to women impact access to treatment. For instance, he outlines Murphy's [102] studies of French-Canadian villages where communities were helpful to their young men with delusions but not their young women and families were willing to pay for a son's treatment but not for a daughter or wife. In a more recent qualitative study, researchers also report gender stereotypes influencing help-seeking. For example, in the context of early intervention, women's help-seeking was often negatively questioned by family members as well as service providers, whereas men reported difficulties discussing their symptoms and that help-seeking was perceived as a sign of weakness by peers [103].

In an original 26-year period cohort study, Månsdotter et al. [104], in Sweden, grounding their research in gender relational theory, examined the effects of gendered life in childhood and adulthood on mental health focusing on the spheres of mother's paid/unpaid work, childcare practice, gendered partnership and gender ideology. The investigators based their research on the well-accepted theory that the improved gender equality of Nordic countries has impacted the health patterns of men and women. Women (n = 421) and men (n = 526) were followed and surveyed at five different time-points: from age 16 to age 42 with a comprehensive questionnaire developed by the investigators. Gendered ideology was measured using a scale indicating support for societal gender equality ranging from 1 (fully supporting a gender-equal society) to 10 (fully rejecting a gender-equal society) and categorized into traditional "ranking 4–10" and nontraditional "ranking 1–3". Similarly, gendered partnership and gendered childcare also used a 5-point Likerttype scale each asking a question about perceived overall equality in one's relationship with a partner and division of childcare responsibility, categorized into traditional and nontraditional. The main findings were that, for women, reduced anxiety was associated with a more gender-equal ideology at age 30, while for men reduced depressive symptoms were associated with more gender-equal

childcare division at age 42. Månsdotter and colleagues [104] speculate that the reduced depressive symptomatology for men may be related to the health-promoting effects of expanding social roles and childcare per se for mental health and specifically the positive influence of increased intimacy. One of the study limitations identified by the authors includes a lack of statistical power when categorising individuals into traditional or nontraditional and when stratifying the analyses by gender. Nevertheless, this type of research demonstrates the utility of employing a SBGA for incorporating micro-, meso- and macro-levels of analysis as was done here through examining gender relations, institutionalized gender and gender ideology.

# 6.3.2 Gender Role Socialization and Mental Health: Internalized Oppression

In addition to the deleterious effects on the mental health of women due to gender inequality, men too suffer adverse effects from restrictive gender role norms. A large body of literature spanning decades emphasizes the effects of gender on mental health with empirical investigations demonstrating harmful psychological impacts (e.g. depression, low self-esteem and substance abuse) of internalized gender role expectations on both males and females [59, 68, 73, 77, 79, 105–110] and recent research demonstrating an association between higher masculinity ideology and increased PTSD symptomatology in male veterans [111].

## 6.3.2.1 Gender Role Socialization, Stress and Coping

Gender role expectations have been shown to correlate closely with differential mental health problems according to sex [73]. For example, rates of depression, agoraphobia, eating disorders, anxiety disorders and PTSD are much higher for women than for men. Conversely, rates of substance abuse and antisocial behaviour are higher for men [3].

According to gender role stereotypes, women are "expected" to be submissive, dependent, and anxious about appearance, whereas men are "expected" to be indulgent, aggressive, and demonstrate sexual prowess (p.124) [73].

Empirical investigations provide evidence that cognitive appraisal and coping is influenced by gender role socialization resulting in gender differences in vulnerability to certain stressors [73, 112]. Eisler and Skidmore [73] and Gillespie and Eisler [74] developed models of gender role stress, drawing explicitly on the cognitive stress model [113], in which stress occurs due to the cognitive appraisal that one has violated gender role imperatives. These models have been tested using the masculine and feminine gender role stress scales described earlier. With the development of these scales, empirical studies have shown an inverse relationship between gender role stress and measures of physical and psychological well-being for both women and men [60].

A review of stress research by Dedovic et al. [114] highlights some recent results from endocrinological, developmental and neuroimaging studies that suggest an important role of gender socialization on the metabolic effects of stress. Dedovic and colleagues [114] suggest that as some differences between men and women in hypothalamic-pituitary-adrenal (HPA) axis responses to psychosocial stressors cannot be explained by biological variables alone, gender is likely to be a critical factor and propose a model that integrates these specific findings, highlighting gender socialization and stress responsivity. The authors point to research that manipulates the psychosocial stressor context or uses stressors emphasising achievement versus social integration, which provide strong support for the role of gender as explaining male-female variations in stress responses.

Surprisingly the impact of gender role socialization on cognitive appraisal and coping with regard to psychosocial stressors has not been explored in individuals experiencing psychotic phenomena, obviously an important area for inquiry considering the role of stressful life events as precipitants for psychotic experiences and in shaping the content of hallucinated voices and delusions [115] and in men's and women's responses to these phenomena. Myin-Germeys et al. [116] in a very interesting study examined sex differences in stress reactivity utilizing experience method sampling. They report that the women in their sample of 42 participants meeting criteria for psychotic disorder (22 men; 20 women) were more likely to display elevated stress reactivity or emotional reactivity (reflected in both an increase in negative affect and a decrease in positive affect) to daily stress as compared to men. The authors suggest that emotional reactivity to daily stress may be an underlying etiologic mechanism for psychosis and constitute part of the liability to psychosis. Myin-Germeys and collegues speculate that as the small stressors and disturbances in daily life were equally distributed among men and women, it may be that women develop higher levels of stress sensitivity through a history of increased exposure to life events and possibly also higher levels of exposure to trauma. However, they did not investigate cognitive appraisals regarding why participants found a particular event stressful which may have extended findings further by identifying underlying cognitive mechanisms in terms of what constitutes stress for men and women and thus enabling SGBA. Research employing SGBA could be useful to examine HPA axis responses in relation to psychotic experiences and other life stressors, for example.

# 6.3.2.2 Gender and Self-Esteem

Because sex and gender distinctions are central, important, and pervasive in Western culture, it can be argued that gender is the earliest, most central, and most active organizing component of one's self-concept (p.690) [52].

According to a cognitive psychological framework, we learn "shoulds" and "musts" or categorical imperatives from important persons in our lives and within particular sociocultural contexts. We observe how others act and interact and the societal

messages conveyed about them. Mahalik [68] outlines how masculine/feminine gender role socialization contributes to self-schemata or gender role schemata influencing self-esteem. He discusses how gender role socialization contributes to gender-related "cognitive distortions" and gender role strain and underlines the implications for cognitive behavioural interventions. In cognitive therapy frameworks, "cognitive distortions" refer to absolutist or global self-defeating thoughts associated with distress. Often these include gendered categorical imperatives that can be contradictory, unattainable or inconsistent: "boys don't cry; a woman's place is in the home" [68]. Empirical investigations have demonstrated associations between gender role conflict and depression and decreased self-esteem in men [108]. The underlying theoretical framework for this work is the gender role strain paradigm. Relatedly, a large body of research based on objectification theory [117–119] has examined the deleterious impact of gender role socialization on female body image and self-esteem.

Mahalingam and Jackson [107] point to ethnographic research which indicates that idealized cultural gender roles shaped by patriarchy, such as chastity and masculinity, play a critical role in controlling women's and men's behaviour. These cultural gender imperatives ultimately influence self-worth. In their research with son preference societies, they suggest that societies resulting in an excessive male population leads to hypermasculine and hyperfeminine ideals increasing patriarchal power structures with detrimental impacts on mental health. This research underlines the importance of incorporating the multiple social categories and determinants, such as ethnicity, social class and culture that intersect with gender to impact mental health in research designs.

As it is known that self-esteem is a significant factor in most mental disorders, it is not surprising that researchers have suggested self-esteem plays roles with regard to the origin, maintenance and consequence of psychotic experiences, similar to that of depression [120–122]. A prospective general population study found that self-esteem was a risk factor for psychosis [122]. Considering that sex and gender are key features of self-esteem and that self-esteem is implicated in psychotic experiences, it follows that a sex- and gender-based analysis is very important for both enhancing our understanding of psychosis and implementing more meaningful psychological interventions.

SGBA can increase our understanding of the interplay between gender, self-esteem and psychotic experiences particularly in light of the finding of a recent study that self-esteem is a predictor of hallucinations and persecutory delusions in early psychosis and females report lower self-esteem than males [123]. In fact the investigators found that sex was a significant predictor of self-esteem in their first-episode sample, with women having significantly lower levels of self-esteem than men even after adjusting for differences in levels of depression. Another study of sex differences from the Danish Opus study of first-episode schizophrenia spectrum disorders, also reported that females, though they scored higher in global functioning than males, scored lower on self-esteem and self-confidence [124].

# 6.3.2.3 Gender and Depression

Much of the research on sex differences in depression (i.e. the consistently reported finding that the prevalence of depressive disorders is greater in women at a rate at least twice that of men) [3] has focused on gender roles due to the lack of empirical research supporting biological theories [125]. Various researchers have emphasized the importance of gender role expectations with regard to marriage, parenting and employment, for example, in the aetiology of psychological disorders [77]. The differing rates of depression for men and women are explained by differing societal expectations according to several researchers [126]. Interestingly, rates of depression increase dramatically for both males and females during the 15- to 18-year age period, but the female rate rises to double the prevalence rate for males [127].

In psychosis, the presentation of depression forms a very complex picture. Birchwood [128] distinguishes three core pathways of emotional disorder in psychosis: (1) as intrinsic to the psychosis diatheses, (2) as a psychological reaction to psychosis and its sequelae referred to as "post-psychotic depression" and (3) as the result of a disturbed developmental pathway. Researchers also point to the difficulty teasing apart "negative symptoms" and depression with some researchers suggesting it is goal-directed behaviour and "defeatist beliefs" that are underlying negative symptom presentation [129–131], features also common in depression. The repeated finding that women with psychosis present with more affective and men with more negative symptomatology may be reflecting the differential expression of depression between men and women in the general population [132]. Here again, SGBA would be helpful in exploring these complex presentations.

### 6.3.2.4 Gender and Men's Health

A large body of work from the field of men's psychology has demonstrated harmful effects of gender role socialization on men's psychological and physical well-being ranging from depression, lower self-esteem, substance abuse, aggression, elevated blood pressure and high-risk health habits [68, 108]. In fact, Berke and colleagues [133] place emotion regulation difficulties as central in their dynamic model of masculinity and psychopathology.

Good and colleagues [134], examining male gender role conflict and psychological distress as measured by the Symptom Checklist-90-Revised, found associations of masculine gender role conflict with depression and interpersonal sensitivity as well as paranoia, psychoticism and obsessive-compulsivity in male students from two different US universities who had requested counselling services. The strongest association for psychoticism was with restrictive emotionality. Paranoid ideation was also related to restrictive emotionality in addition to success, power and competition, components of male gender role conflict. Obsessive-compulsivity was associated with men's conflict between work and family relations. The authors emphasize the clinical implications associated with the harmful psychological impacts of male gender role socialization:

Given the relations between a range of psychological symptoms and masculine gender role conflict, it appears that men in US society might be psychologically healthier if they did not attempt to limit their feelings, cognitions and behaviours to those prescribed by masculine gender roles. In addition, given the relations observed here, counsellors would be wise to examine the extent to which male clients experiencing depression, interpersonal sensitivity, obsessive-compulsivity, and even psychosis have concerns or discomfort related to male gender roles. (p. 48)

# 6.3.2.5 Gender and Impact of Trauma/Sexual Abuse

A number of studies examining gender ideologies and trauma have reported struggles with sexual identity, negative gender schemata and shame in both men [9] and women who have experienced sexual abuse [8, 135]. Krause and Roth [135] point out how one's core beliefs about self, others and their relationships are often challenged by the experience of childhood sexual abuse (CSA). Studies, especially qualitative research, reveal that the sociocultural context and gender, in particular, influence how individuals make meaning of and respond to traumatic experience [8]. As trauma is common in people with psychosis and there is an association of childhood sexual abuse with hallucinations [6, 92, 136, 137], this line of inquiry may be fruitful in terms of increasing our understanding of how gender interacts with trauma. For example, research could explore how gender shapes the experience and presentation of psychotic phenomena such as hallucinated voice content underlining more gender-responsive implications for intervention. For recent research that does just that please see Haarmans and colleagues, in which the investigators examined the influence of intersecting social categories of gender and race reflected in hallucinated voice content [138]. Furthermore, research suggests negative beliefs about the self and the world are developed in response to trauma mediating the distress arising from psychotic phenomena [25]. SBGA has potential for increasing our understanding of how gender role norms impact negative self-schemata ultimately influencing self-esteem and distress. Some recent studies have revealed that sexual content of voices and/or delusions predicts history of childhood sexual abuse [139–142]. These researchers point out the clinical implications arising from this research, in particular, the importance of assessing childhood trauma and traumarelated symptoms and offering a range of trauma-focused treatment interventions. Birchwood and colleagues [27] also suggest that earlier experiences of trauma such as abuse and harassment may be related to the sense of powerlessness and subordination the person experiences in relation to their hallucinated voices and others in their social world. The few psychosis studies that have examined sex differences with regard to trauma experiences report considerable differences between females and males. For example, one study found that CSA was almost double for women than men [143–145], and an epidemiological study, reported it was five times greater for women than men [146]. Another study found that gender moderated the association of sexual trauma and psychosis (being stronger for females) [136]. Research with ultra-high-risk (UHR) samples found that prevalence of sexual trauma was higher in females [142]. In a large epidemiological case-control study of first episode psychosis, an association of sexual and physical abuse with psychosis was found with women but not men [147]. Mixed samples found an incidence (3:1) of sexual abuse among women compared to men and conversely a higher incidence (3:2) of physical abuse among men than women [148]. Other research reported that sexual abuse increases chance of conversion to psychosis in individuals at ultra-high risk almost three times [149]. All these studies underscore the importance for incorporating SGBA in psychosis research both for prevention and psychological interventions such as trauma-informed/trauma-specific and gender-specific approaches.

In an attempt to redress the lack of studies examining gender-specific responses to child abuse in psychosis, Barker-Collo and Read [29] examined the relationships between child physical and sexual abuse with psychoticism and other subscales of the Symptom Checklist-90-Revised [150] in addition to coping styles. The authors indicate that while men and women reported similar levels of psychoticism in the absence of abuse, when abuse had been experienced, men's reports of psychoticism and depression increased more than that of women, peaking with sexual abuse. Men also reported a sharper increased overall severity of difficulties on the Global Severity Index (GSI) than women when abuse was reported as well as a significant elevation in paranoid ideation for men in the sexually abused only grouping. Other differential responses to abuse, reported by the investigators, were that males are less likely to employ the coping style, "seeking guidance and support", and more likely to employ "emotional discharge", (when sexually abused but not physically abused), which refers to "take it out on other people when you felt angry or depressed". The authors point out that the finding that males employ "emotional discharge" to cope is consistent with other research that demonstrates men typically respond to abuse with "... externalizing and aggressive behaviour, sometimes reaching criminal levels as adults" (p. 37). For individuals who had been both sexually and physically abused, psychoticism and paranoid ideation were elevated for both sexes. Barker-Collo and Read emphasize that "...sexual abuse is rarely spontaneously disclosed by either gender. Boys are not only less likely than girls to spontaneously tell anyone at the time of the abuse but also take longer to do so, or to seek help for the effects of the abuse, as adolescents or adults" (p. 37). This factor, in addition to the findings demonstrating differential coping styles between both sexes who have been abused, underlines the importance of SGBA in psychosis research for understanding the pathways from trauma to psychosis and the underlying mechanisms involved. For this reason, the authors urge researchers to incorporate a gender analysis in future psychosis research.

# 6.3.3 SGBA: Aiding Clarification of Sex Differences

Understanding the impact of gender roles has utility for clarifying some of the reported sex differences in schizophrenia (see Chap. 18). To date, the literature fails to adequately explain how these differences came to be [151]. For example, the

repeated finding that men experience more "negative symptoms" than women could be possibly clarified if examined from a gender perspective. Difficulty experiencing, fantasizing, thinking about and expressing one's emotions or alexithymia [152] is more common in men than in women in the general population [153], and men with higher levels of gender role conflict tend to have higher levels of alexithymia [154]. Levant [66] has emphasized that one normative masculine role requirement is the restriction of emotional expression with empirical research finding a relationship between the endorsement of traditional masculinity ideology and alexithymia in men in addition to its association with psychological distress [133]. In the psychosis field, emerging research has demonstrated, within the negative symptom construct, two subdomains: (1) diminished expression and (2) amotivation which has been found to be related to goal-directed behaviour and defeatist attitudes [129– 131] with amotivation identified as the key component especially with regard to functional outcome [130]. Could the subdomain of diminished expression be related to an exaggerated form of alexithymia? van't Wout et al. [155] found that males (but not females) with schizophrenia reported greater difficulty verbalizing and identifying their emotions and heightened levels of emotional arousal. Research utilizing SGBA could be helpful in exploring this possibility. For example, quantitative methods could employ gender measures, such as the Gender Role Conflict Scale-I (GRCS-I; O'Neil et al. [57]) cited earlier. This scale is an empirically derived measure of male gender role conflict assessing restrictive emotionality as one of four domains. Furthermore, as male role norms emphasize achievement and competition, the subdomain of amotivation as related to goal-directed behaviour and defeatist attitudes may also have particular relevance for young men who are struggling with these societal messages in their developmental trajectory. Foussias and Remington [130] remind us that "...the earliest descriptions of schizophrenia emphasized a disturbance of volition/will as the fundamental underlying process in its pathology" (p. 359). This is an interesting area to pursue due to the fact that psychosis onset appears in late adolescence, earlier in men than women, typically the time when developmental stressors and social roles such as sociosexuality, achievement and vocational issues are particularly pronounced for young men [95, 156, 157]. Several authors point out that childhood and adolescence are critical periods for "navigating influential and culturally variable constructs of masculinity/femininity...as part of a complex set of negotiations of an individual's gendered self that continues throughout the life course..." (Abrams [158], p. 64). Here we can see how the gender role strain paradigm could be relevant for understanding the social pressures particularly for young men who may be at risk for discrepancy strain impacting self-esteem and resulting in psychological distress. The findings that (1) there is poorer academic, occupational and interpersonal functioning in males than in females before the diagnosis [159–161] and that (2) personal goals are reflected in delusional themes [162] (see Chap. 18) also suggest a role for gender and thus for SGBA in psychosis research and again highlight the importance of genderresponsive psychological interventions.

# 6.4 Conclusion: Sex- and Gender-Based Analysis Equals Better Science

In conclusion, this chapter has outlined several important factors that underline the usefulness of SGBA in enhancing schizophrenia research. Several of these factors have led to recent international developments such as WHO advocating SBGA not only to improve health research, policies and services but also to respond to gender-related health inequities [46] as a matter of human rights [163].

- 1. Gender influences exposure to social-structural risk factors such as sexual violence, socioeconomic disadvantage and low social rank all of which have been linked to psychosis.
- 2. Research has demonstrated harmful psychological impacts of internalized gender role expectations on both males and females; however this has not been explored in the psychosis field.
- 3. Research, qualitative studies in particular, have revealed how gender influences the impact of sexual abuse. Cultural beliefs about masculinity, femininity and sexuality influence how female and male survivors make sense of their traumatic experience [7, 8, 135]. Obviously this is a very important area to explore in individuals with a psychosis diagnosis in light of the research linking sexual abuse and psychosis with implications for the need to develop gender-responsive, trauma-informed and trauma-specific psychological interventions.
- 4. In addition to increasing understanding of the cognitive and psychological mechanisms that generate and maintain distressing psychotic experiences, SBGA both implicates and satisfies the need to address social factors and injustices by extending analysis beyond intrapsychic distress at the individual level to the sociocultural level. As Connell [164], advocating a "relational gender analysis", explains: "The analysis needs to consider simultaneously the shape of the gender order and its historical transformations, the pattern of institutional and interpersonal relations, and the body-reflexive practices in which health consequences are produced" (p. 1679).
- 5. SGBA promotes a theoretical sophistication inherent in the overlapping constructs of "sex" and "gender" where there are not always clear divisions for the influences of the biological, psychological and sociocultural.

As Doyal [165] has argued, "Greater sensitivity needs to be paid to sex and gender issues in all areas of health research. Failure to recognize this will lead to bad science and avoidable mortality, morbidity, and disability" (p. 162).

This chapter has illustrated that the same argument applies to schizophrenia research. SGBA in schizophrenia research is long overdue. Let's hope that it does not take another decade before we see a true integration of SGBA improving the science of our field.

# References

- 1. Nowatzki N, Grant KR. Sex is not enough: the need for gender-based analysis in health research. Health Care Women Int. 2011;32(4):263–77.
- Johnson JL, Greaves L, Repta R. Better science with sex and gender: a primer for health research. Vancouver: Women's Health Research Network; 2007.
- World Health Organization (WHO). Gender in Mental Health Research Report. 2004. http://libdoc.who.int/publications/2004/9241592532.pdf. Accessed 29 Mar 2011.
- 4. DoH. Women's mental health: into the mainstream. Strategic development of mental health care for women. London: Department of Health; 2002.
- Nasser EH, Walders N, Jenkins JH. The experience of schizophrenia: what's gender got to do
  with it? A critical review of the current status of research on schizophrenia. Schizophr Bull.
  2002;28(2):351–62.
- Varese F, Smeets F, Drukker M, Lieverse R, Lataster T, Viechtbauer W, et al. Childhood adversities increase the risk of psychosis: a meta-analysis of patient-control, prospective- and cross-sectional cohort studies. Schizophr Bull. 2012;38(4):661–71.
- 7. Goodman LA, Rosenberg SD, Mueser KT, Drake RE. Physical and sexual assault history in women with serious mental illness: prevalence, correlates, treatment, and future research directions. Schizophr Bull. 1997;23(4):685–96.
- Lebowitz L, Roth S. "I felt like a slut": the cultural context and women's response to being raped. J Traum Stress. 1994;7:363–90. https://doi.org/10.1002/jts.2490070304.
- Lisak D. The psychological impact of sexual abuse: content analysis of interviews with male survivors. J Traum Stress. 1994;7(4):525

  –47.
- Riecher-Rössler A. Oestrogens, prolactin, hypothalamic-pituitary-gonadal axis, and schizophrenic psychoses. Lancet Psychiatry. 2017;4:63–72. https://doi.org/10.1016/S2215-0366(16)30379-0.. Published online Nov 14
- 11. Halvorsrud K, Nazroo J, Otis M, Brown Hajdukova E, Bhui K. Ethnic inequalities in the incidence of diagnosis of severe mental illness in England: A systematic review and new meta-analyses for non-affective and affective psychoses. Soc Psychiatry Psychiatr Epidemiol. 2019. (under review).
- 12. Harrison G, Glazebrook C, Brewin J, Cantwell R, Dalkin T, Fox R, et al. Increased incidence of psychotic disorders in migrants from the Caribbean to the United Kingdom. Psychol Med. 1997;27(4):799–806.
- Selten JP, Cantor-Graae E. Hypothesis: social defeat is a risk factor for schizophrenia? Br J Psychiatry Suppl. 2007;51:9.
- 14. Bhui K, Halvorsrud K, Nazroo J. Making a difference: ethnic inequality and severe mental illness. Br J Psychiatry. 2018;213(4):574–8.
- 15. Harrison G, Gunnell D, Glazebrook C. Association between schizophrenia and socialinequality at birth: case—control study. Br J Psychiatry. 2001;179:346–50.
- Krabbendam L, van Os J. Schizophrenia and urbanicity: a major environmental influence conditional on genetic risk. Schizophr Bull. 2005;31(4):795–9.
- Pedersen CB, Mortensen PB. Evidence of a dose-response relationship between urbanicity during upbringing and schizophrenia risk. Arch Gen Psychiatry. 2001;58(11):1039–46.
- 18. Bentall RP, Wickham S, Shevlin M, Varese F. Do specific early-life adversities lead to specific symptoms of psychosis? A study from the 2007 the Adult Psychiatric Morbidity Survey. Schizophr Bull. 2012;38(4):734–40.
- Morgan C, Kirkbride J, Leff J, Craig T, Hutchinson G, McKenzie K, et al. Parental separation, loss and psychosis in different ethnic groups: a case-control study. Psychol Med. 2007;37(4):495–503.
- Arseneault L, Cannon M, Fisher HL, Polanczyk G, Moffitt TE, Caspi A. Childhood trauma and children's emerging psychotic symptoms: a genetically sensitive longitudinal cohort study. Am J Psychiatry. 2010;168(1):65–72.

21. Schreier A, Wolke D, Thomas K, Horwood J, Hollis C, Gunnell D, et al. Prospective study of peer victimization in childhood and psychotic symptoms in a nonclinical population at age 12 years. Arch Gen Psychiatry. 2009;66(5):527–36.

- Bentall RP, Fernyhough C. Social predictors of psychotic experiences: specificity and psychological mechanisms. Schizophr Bull. 2008;34:1009–11.
- Read J, van Os J, Morrison AP, Ross CA. Childhood trauma, psychosis and schizophrenia: a literature review with theoretical and clinical implications. Acta Psychiatr Scand. 2005;112(5):330–50.
- Morrison AP, Read J, Turkington D. Trauma and psychosis: theoretical and clinical implications. Acta Psychiatr Scand. 2005;112:327–9.
- 25. Morrison AP. The interpretation of intrusions in psychosis: an integrative cognitive approach to hallucinations and delusions. Behav Cogn Psychother. 2001;29:257–76.
- Birchwood M, Meaden A, Trower P, Gilbert J, Plainstow J. The power and omnipotence of voices and significant others. Psychol Med. 2000;30(2):337–44.
- 27. Birchwood M, Gilbert P, Gilbert J, Trower P, Meaden A, Hay J, et al. Interpersonal and role-related schema influence the relationship with the dominant 'voice' in schizophrenia: a comparison of three models. Psychol Med. 2004;34(8):1571–80.
- 28. Hayward M, Berry K, Ashton A. Applying interpersonal theories to the understanding of and therapy for auditory hallucinations: a review of the literature and directions for further research. Clin Psychol Rev. 2011;31(8):1313–23.
- Barker-Collo S, Read J. The roles of gender and coping styles in the relationship between child abuse and the SCL-90-R subscales 'psychoticism' and 'paranoid ideation'. NZ J Psychol. 2011;40(3):30–40.
- Riecher-Rossler A, Butler S, Kulkarni J. Sex and gender differences in schizophrenic psychoses-a critical review. Arch Womens Ment Health. 2018;21:627–48.
- 31. Ivezic SS, John N. Gender and schizophrenia. Psychiatr Danub. 2009;21(Suppl 1):106–10.
- 32. Lewine R. At issue: sex and gender in schizophrenia. Schizophr Bull. 2004;30(4):755–62.
- 33. Lewine RR. Sex: an imperfect marker of gender. Schizophr Bull. 1994;20(4):777–9.
- 34. Leung A, Chue P. Sex differences in schizophrenia, a review of the literature. Acta Psychiatr Scand. 2000;101:3–38.
- 35. Read J. Poverty, ethnicity, and gender. In: Read J, Mosher L, Bentall R, editors. Models of madness: psychological, social and biological approaches to schizophrenia. London: Routledge; 2004. p. 161–94.
- 36. Sharma RP, Dowd SM, Janicak PG. Hallucinations in the acute schizophrenic-type psychosis: effects of gender and age of illness onset. Schizophr Res. 1999;37(1):91–5.
- 37. Murphy JA, Shevlin M, Adamson G, Houston J. A population based analysis of subclinical psychosis and help-seeking behaviour. Schizophr Bull. 2012;38(2):360–7. https://doi.org/10.1093/schbul/sbq092.
- 38. Tien AY. Distributions of hallucinations in the population. Soc Psychiatry Psychiatr Epidemiol. 1991;26(6):287–92.
- Unger RK. Imperfect reflections of reality: psychology constructs gender. In: Hare-Mustin RT, Maracek J, editors. Making a difference: psychology and the construction of gender. New Haven: Yale University Press; 1990. p. 102–49.
- 40. Hare-Mustin RT, Marecek J. Asking the right questions: feminist psychology and sex differences. Fem Psychol. 1994;4(4):531–7.
- Riecher-Rössler A, Pflüger M, Borgwardt S. Schizophrenia in women. In: Kohen D, editor. Oxford textbook of women and mental health. Oxford: Oxford University Press; 2010. p. 102–14.
- 42. Daniel D, Mathew R, Wilson W. Sex roles and regional cerebral blood flow. Psychiatry Res. 1988;27:55–64.
- 43. Bem SL. The measurement of psychological androgyny. J Consult Clin Psychol. 1974;42:155–62.
- 44. Haarmans M, McKenzie K, Kidd S, Bentall RP. Gender role strain, core schemas and psychotic experiences in ethnically diverse women: a role for sex- and gender-based analysis

- in psychosis research? Clin Psychol Psychother. 2018;25:774–84. https://doi.org/10.1002/cpp.2307.
- 45. Health Canada. Health Canada's gender-based analysis policy. Ottawa: Minister of Public Works and Government Services of Canada; 2000.
- 46. Clow B, Pederson A, Haworth-Brockman M, Bernier J. Rising to the challenge: sex- and gender-based analysis for health planning, policy, and research in Canada. Halifax: Atlantic Centre of Excellence for Women's Health; 2009.
- 47. Health Canada. Health portfolio sex and gender-based analysis policy. 2010. http://www.hc-sc.gc.ca/hl-vs/pubs/women-femmes/sgba-policy-politique-ags-eng.php. Accessed Feb 2014
- 48. Nasser M. Women, ethnicity, and mental health. In: Kohen D, editor. Oxford textbook of women and mental health. Oxford: Oxford University Press; 2010. p. 23–9.
- Liverpool School of Tropical Medicine, Gender and Health Group (Undated). http://www.lst-mliverpool.ac.uk/research/academic-groups/international-health/gender-and-health-group/gaf. Accessed 15 May 2012.
- 50. Knaak S. On the reconceptualising of gender: implications for research design. Sociol Inq. 2004;74(3):302–17.
- Marsh DT. Serious emotional disturbance and serious mental illness. In: Worrell J, Goodheart CD, editors. Handbook of girl's and women's psychological health. New York: Oxford University Press; 2006.
- Koestner R, Aube J. A multifactorial approach to the study of gender characteristics. J Pers. 1995;63(3):681–710.
- Spence JT. Gender-related traits and gender ideology: evidence for a multifactorial theory. J Pers Soc Psychol. 1993;64(4):624–35.
- 54. Bem SL. Gender schema theory: a cognitive account of sex typing source. Psychol Rev. 1981;88:354.
- 55. Levant R, Richmond K, Cook S, House A, Aupont M. The femininity ideology scale: factor structure, reliability, convergent and discriminant validity, and social contextual variation. Sex Roles. 2007;57(5):373–83.
- 56. Levant RF, Fischer J. The Male Role Norms Inventory. In: Davis C, Yarber W, Bauserman R, Schreer G, Davis S, editors. Sexuality-related measures: a compendium. 2nd ed. Newbury Park, CA: Sage; 1998. p. 469–72.
- 57. O'Neil JM, Helms B, Gable R, David L, Wrightsman L. Gender role conflict scale: college men's fear of femininity. Sex Roles. 1986;14:335–50.
- 58. Pleck JH. The myth of masculinity. Cambridge: MIT Press; 1981.
- Pleck JH. The gender role strain paradigm: an update. In: Levant RF, Pollack WS, editors. A new psychology of men. New York: Basic Books; 1995.
- 60. Eisler RM. The relationship between masculine gender role stress and men's health risk: the validation of a construct. In: Levant RF, Pollack WS, editors. A new psychology of men. New York: Basic Books; 1995. p. 207–25.
- Mahalik JR, Locke BD, Ludlow LH, Diemer M, Scott RPJ, Gottfried M, et al. Development of the conformity to masculine norms inventory. Psychol Men Masculinity. 2003;4:3–25.
- 62. Mahalik JR, Morray EB, Coonerty-Femiano A, Ludlow LH, Slattery SM, Smiler A. Development of the conformity to feminine norms inventory. Sex Roles. 2005a;52(7/8):417–35.
- 63. Boyle M. Making gender visible in clinical psychology. Fem Psychol. 1997;7(2):231–8.
- 64. Cuthbert A. Current and possible future directions in masculinity ideology research. Psychol Men Masculinity. 2015;16(2):134–6.
- 65. Thompson E, Bennett KM. Measurement of masculinity ideologies: a (critical) review. Psychol Men Masculinity. 2015;16(2):115–33.
- 66. Levant RF. Research in the psychology of men and masculinity using the gender role strain paradigm as a framework. Am Psychol. 2011;66(8):765–76.
- Levant RF, Rankin TJ, Williams CM, Hasan NT, Smalley KB. Evaluation of the factor structure and construct validity of scores on the Male Role Norms Inventory—revised (MRNI–R).
  Psychol Men Masculinity. 2010;11(1):25–37.

68. Mahalik JR. Incorporating a gender role strain perspective in assessing and treating men's cognitive distortions. Prof Psychol Res Pr. 1999;30(4):333–40.

- 69. Mahalik JK, Talmadge WT, Locke BD, Scott RPJ. Using the conformity to masculine norms inventory to work with men in a clinical setting. J Clin Psychol. 2005b;61:661–74.
- 70. Toner B, Tang T, Ali A, Akman D, Stuckless N, Esplen MJ, et al. Developing a gender-role socialization scale. In: Oliffe JL, Greaves L, editors. Designing and conducting gender, sex, and health research. Los Angeles: Sage Publications Inc; 2012. p. 189–200.
- 71. Johnson JL, Repta R. Sex and gender: beyond the binaries. In: Oliffe JL, Greaves L, editors. Designing and conducting gender, sex, & health research. Los Angeles: Sage Publications Inc; 2012. p. 39–64.
- 72. Johnson JL, Greaves L, Repta R. Better science with sex and gender: facilitating the use of a sex and gender-based analysis in health research. Int J Equity Health. 2009;8(14):1–11.
- 73. Eisler RM, Skidmore JR. Scale development and component factors in the appraisal of stressful situations. Behav Modif. 1987;11(2):123–36.
- 74. Gillespie BL, Eisler RM. Development of the feminine gender role stress scale. A cognitive-behavioral measure of stress, appraisal, and coping for women. Behav Modif. 1992;16(3):426–38.
- Gilbert P, Allen S. The role of defeat and entrapment (arrested flight) in depression: an exploration of an evolutionary view. Psychol Med. 1998;28:585–98.
- World Health Organization. Women's Mental Health: an evidence-based review. 2000. http://www.who.int/mental\_health/media/en/67.pdf Accessed 29 Mar 2011.
- 77. Ballou M, Brown LS. Rethinking mental health and disorder: feminist perspectives. New York: Guilford; 2002.
- 78. Worell J, Remer P. Feminist perspectives in therapy: empowering diverse women. 2nd ed. Hoboken, NJ: John Wiley & Sons Inc; 2003.
- 79. Brown LS. Feminist therapy. Washington, DC: American Psychological Association; 2009.
- 80. Levant RF. The crisis of connection between men and women. J Men's Stud. 1996;5:1–12.
- 81. Tang TN, Tang CS. Gender role internalization, multiple roles, and Chinese women's mental health. Psychol Women Q. 2001;25:181–96.
- 82. Tolman DL, Impett EA, Tracy AJ, Michael A. Looking good, sounding good: femininity ideology and adolescent girls' mental health. Psychol Women Q. 2006;30(1):85–95.
- 83. O'Neil JM, Good GE, Holmes SE. Fifteen years of theory and research on men's gender role conflict: new paradigms for empirical research. In: Levant R, Pollack W, editors. A new psychology of men. New York: Basic Books; 1995.
- 84. Thompson EH, Pleck JH. Masculinity ideologies: a review of research instrumentation on men and masculinities. In: A new psychology of men. New York, NY: Basic Books; 1995. p. 129–63.
- 85. Longenecker J, Genderson J, Dickinson D, Malley J, Elvevag B, Weinberger DR, et al. Where have all the women gone? Participant gender in epidemiological and non-epidemiological research of schizophrenia. Schizophr Res. 2010;119(1–3):240–5.
- 86. Hambrecht M, Maurer K, Häfner H. Evidence for a gender bias in epidemiological studies of schizophrenia. Schizophr Res. 1993;8(3):223–31.
- 87. Wahl OF, Hunter J. Are gender effects being neglected in schizophrenia research? Schizophr Bull. 1992;18(2):313–7.
- 88. Woodall A, Morgan C, Sloan C, Howard L. Barriers to participation in mental health research: are there specific gender, ethnicity and age related barriers? BMC Psychiatry. 2010;10:103. https://doi.org/10.1186/1471-244X-10-103.
- 89. McGrath J, Saha S, Chant D, Welham J. Schizophrenia: a concise overview of incidence, prevalence, and mortality. Epidemiol Rev. 2008;30:67–76.
- Iacono WG, Beiser M. Are males more likely than females to develop schizophrenia. Am J Psychiatry. 1992a;149:1070

  –4.
- 91. Iacono WG, Beiser M. Where are the women in first-episode studies of schizophrenia? Schizophr Bull. 1992b;18:471–80.

- 92. Read J, Fink PJ, Rudeqeair T, Felitti V, Whitefield CL. Child maltreatment and psychosis: time to return to the genuinely integrated bio-psycho-social model. Clin Schizophr Relat Psychoses. 2008;2:235–54.
- 93. Taylor PJ, Braqado-Jimenez MD. Women, psychosis, and violence. Int J Law Psychiatry. 2009;32(1):56–64.
- 94. Aleman A, Kahn RS, Selten JP. Sex differences in the risk of schizophrenia: evidence from meta-analysis. Arch Gen Psychiatry. 2003;60:565–71.
- Seeman MV. Schizophrenic men and women require different treatment programs. J Psychiatr Treat Eval. 1983;5:143–8.
- 96. Falkenburg J, Tracy DK. Sex and schizophrenia: a review of gender differences. Psychosis. 2012;6:61–9.
- 97. Rudden M, Sweeney J, Frances A, Gilmore M. A comparison of delusional disorders in women and men. Am J Psychiatry. 1983;140(12):1575–8.
- 98. Stone M. The borderline syndromes. New York: McGraw-Hill; 1980.
- 99. Carmen EM, Russo NF, Miller JB. Inequality and mental health. Am J Psychiatry. 1981;138(10):1319–39.
- Mowbray CT, Nicholson J, Bellamy CD. Psychosocial rehabilitation service needs of women. Psychiatr Rehabil J. 2003;27:104

  –33.
- 101. Al-Issa I. Gender and schizophrenia. In: Al-Issa I, editor. Gender and psychopathology. New York: Academic Press; 1982. p. 153–77.
- 102. Murphy HBM. Cultural aspects of delusion. Stud Gen. 1967;20:684-92.
- 103. Ferrari G, Agnew-Davies R, Bailey J, Howard L, Howarth E, Peters TJ, et al. Domestic violence and mental health: a cross-sectional survey of women seeking help from domestic violence support services. Glob Health Action. 2016;9:29890.
- 104. Månsdotter A, Nordenmark M, Hammarström A. The importance of childhood and adult-hood aspects of gendered life for adult mental ill-health symptoms—a 27-year follow-up of the Northern Swedish Cohort. BMC Public Health. 2012;12:493–504.
- 105. Good GE, Mintz LB. Gender role conflict and depression in college men: evidence for compound risk. J Couns Dev. 1990;69:17–21.
- 106. Levant RF, Pollock WS. A new psychology of men. New York: Basic; 1995.
- 107. Mahalingam R, Jackson B. Idealized cultural beliefs about gender: implications for mental health. Soc Psychiatry Psychiatr Epidemiol. 2007;42:1012–23.
- 108. O'Neil JM. Summarizing 25 years of research on men's gender role conflict using the gender role conflict scale—New research paradigms and clinical implications. Couns Psychol. 2008;36(3):358–445.
- 109. Sharpe MJ, Heppner PP. Gender role, gender-role conflict, and psychological well-being in men. Couns Psychol. 1991;38(3):323–30.
- 110. Zamarripa MX, Wampold BE, Gregory E. Male gender role conflict, depression, and anxiety: clarification and generalizability to women. Couns Psychol. 2003;50(3):333–8.
- 111. Morrison J. Masculinity moderates the relationship between symptoms of PTSD and cardiacrelated health behaviors in male veterans. Psychol Men Masc. 2012;13(2):158–65.
- 112. Sigmon ST, Stanton AL, Snyder CR. Gender differences in coping: a further test of socialization and role constraint theories. Sex Roles. 1995;33(9/10):565–87.
- 113. Lazarus RS, Folkman S. Stress, appraisal, and coping. New York: Springer; 1984.
- 114. Dedovic K, Wadiwalla M, Engert V, Pruessner JC. The role of sex and gender socialization in stress reactivity. Dev Psychol. 2009;45(1):45–55.
- 115. Raune D, Bebbington P, Dunn G, Kuipers E. Event attributes and the content of psychotic experiences in first-episode psychosis. Psychol Med. 2006;36:221–30.
- Myin-Germeys I, Krabbendam L, Delespaul PA, Van Os J. Sex differences in emotional reactivity to daily life stress in psychosis. J Clin Psychiatry. 2004;65:805–9.
- 117. Fredrickson BL, Roberts TA. Objectification theory: toward understanding women's lived experiences and mental health risks. Psychol Women Q. 1997;21:173–206.

118. Moradi B. Objectification theory: areas of promise and refinement. Couns Psychol. 2011;39(1):153–63.

- 119. Szymanski DM, Moffitt LB, Carr ER. Sexual objectification of women: advances to theory and research ψ. Couns Psychol. 2011;39(1):6–38.
- 120. Smith B, Fowler DG, Freeman D, Bebbington P, Bashforth H, Garety P, et al. Emotion and psychosis: links between depression, self-esteem, negative schematic beliefs and delusions and hallucinations. Schizophr Res. 2006;85(1-3):181–8.
- 121. Fowler D, Freeman D, Smith B, Kuipers E, Bebbington P, Bashforth H, et al. The Brief Core Schema Scales (BCSS): psychometric properties and associations with paranoia and grandiosity in non-clinical and psychosis samples. Psychol Med. 2006;36(6):749–59.
- 122. Krabbendam L, Janssen I, Bak M, Bijl RV, de Graaf R, van Os J. Neuroticism and low self-esteem as risk factors for psychosis. Soc Psychiatry Psychiatr Epidemiol. 2002;37(1):1–6.
- 123. Romm KL, Rossberg JI, Hansen CF, Haug E, Andreassen OA, Melle I. Self-esteem is associated with premorbid adjustment and positive psychotic symptoms in early psychosis. BMC Psychiatry. 2011;11:136.
- 124. Thorup A, Petersen L, Jeppesen P, Ohlenschlaeger J, Christensen T, Krarup G, et al. Gender differences in young adults with first-episode schizophrenia spectrum disorders at baseline in the Danish OPUS study. J Nerv Ment Dis. 2007;195(5):396–405.
- 125. Nolen-Hoeksema S. Epidemiology and theories of gender differences in unipolar depression. In: Seeman MV, editor. Gender and psychopathology. Washington, DC: American Psychiatric Press; 1995. p. 63–87.
- 126. Sparks E. Depression and schizophrenia in women: the intersection of gender, race/ethnicity, and class. In: Ballou I, Brown LS, editors. Rethinking mental health and disorder: feminist perspective. New York: Guilford; 2002. p. 279–305.
- 127. Hankin BL, Abramson LY, Moffitt TE, Silva PA, McGee R, Angell KE. Development of depression from preadolescence to young adulthood: emerging gender differences in a 10-year longitudinal study. J Abnorm Psychol. 1998b;107(1):128–40.
- 128. Birchwood M. Pathways to emotional dysfunction in first-episode psychosis. Br J Psychiatry. 2003;182:373–5.
- 129. Beck AT, Grant PM, Huh GA, Perivoliotis D, Chang NA. Dysfunctional attitudes and expectancies in deficit syndrome schizophrenia. Schizophr Bull. 2013;39(1):43–51.
- 130. Foussias G, Remington G. Negative symptoms in schizophrenia: Avolition and Occam's razor. Schizophr Bull. 2010;36(2):359–69.
- 131. Grant PM, Beck AT. Defeatist beliefs as a mediator of cognitive impairment, negative symptoms, and functioning in schizophrenia. Schizophr Bull. 2009;35(4):798–806.
- 132. Martin LA, Neighbors HW, Griffith DM. The experience of symptoms of depression in men vs women: analysis of the National Comorbidity Survey Replication. JAMA Psychiat. 2013;70:1100–6.
- 133. Berke DS, Reidy D, Zeichner A. Masculinity, emotion regulation, and psychopathology: a critical review and integrated model. Clin Psychol Rev. 2018;66:106–16.
- 134. Good GE, Robertson JM, Fitzgerald LF, Stevens M, Bartels KM. The relation between masculine role conflict and psychological distress in male university counselling centre clients. J Couns Dev. 1996;75:44–9.
- 135. Krause E, Roth S. Child sexual abuse history and feminine gender-role identity. Sex Roles. 2011;64(1):32–42.
- 136. Bebbington P, Jonas S, Kuipers E, King M, Cooper C, Brugha T, et al. Childhood sexual abuse and psychosis: data from a cross-sectional national psychiatric survey in England. Br J Psychiatry. 2011;199(1):29–37.
- 137. Elklit A, Shevlin M. Female sexual victimization predicts psychosis: a case–control study based on the Danish Registry System. Schizophr Bull. 2011;37:1305–10.
- 138. Haarmans M, Vass V, Bentall RP. Voices' use of gender, race and other social categories to undermine female voice-hearers: Implications for incorporating intersectionality within CBT for psychosis. Psychosis. 2016;8(3):1–11. https://doi.org/10.1080/17522439.2015.1131323.

- 139. Hardy A, Fowler D, Freeman D, Smith B, Steel C, Evans J, et al. Trauma and hallucinatory experience in psychosis. J Nerv Ment Dis. 2005;193:501–7.
- 140. Read J, Argyle N. Hallucinations, delusions, and thought disorder among adult psychiatric inpatients with a history of child abuse. Psychiatr Serv. 1999;50:1467–72.
- 141. Reiff M, Castille DM, Muenzenmaier K, Link B. Childhood abuse and the content of adult psychotic symptoms. Psychol Trauma. 2012;4(4):356–69.
- 142. Thompson A, Nelson B, McNab C, Simmons M, Leicester S, McGorry PD, et al. Psychotic symptoms with sexual content in the "ultra high risk" for psychosis population: frequency and association with sexual trauma. Psychiatry Res. 2010;177(1–2):84–91.
- 143. Conus P, Cotton S, Schimmelmann BG, Berk M, Daglas R, McGorry PD, et al. Pretreatment and outcome correlates of past sexual and physical trauma in 118 bipolar I disorder patients with a first episode of psychotic mania. Bipolar Disord. 2010;12(3):244–52.
- 144. Lysaker PH, Beattie BA, Strasburger MA, Davis LW. Reported history of child sexual abuse in schizophrenia–association with heightened symptom levels and poorer participation over four months in vocational rehabilitation. J Nerv Ment Dis. 2005;193:790–5.
- 145. Morgan C, Fisher H. Environmental factors in schizophrenia: childhood trauma—a critical review. Schizophr Bull. 2007;33:3–10.
- 146. Cotton SM, Lambert M, Schimmelmann BG, Foley DL, Morley KI, McGorry PD, et al. Gender differences in premorbid, entry, treatment, and outcome characteristics in a treated epidemiological sample of 661 patients with first episode psychosis. Schizophr Res. 2009;114(1-3):17–24.
- 147. Fisher H, Morgan C, Dazzan P, Craig TK, Morgan K, Hutchinson G, et al. Gender differences in the association between childhood abuse and psychosis. Br J Psychiatry. 2009;194(4):319–25.
- 148. MacMillan HL, Fleming JE, Streiner DL, Lin E, Boyle MH, Jamieson E, et al. Childhood abuse and lifetime psychopathology in a community sample. Am J Psychiatry. 2001;158(11):1878–83.
- 149. Bechdolf A, Thompson A, Nelson B, Cotton S, Simmons MB, Amminger GP, et al. Experience of trauma and conversion to psychosis in an ultra-high-risk (prodromal) group. Acta Psychiatr Scand. 2010;121(5):377–84.
- 150. Derogatis LR, Lazarus L. SCL-90—R, Brief Symptom Inventory and matching clinical rating scales. In: Maruish ME, editor. The use of psychological testing for treatment planning and outcome assessment. Hillsdale, NJ: Lawrence Erlbaum Associates; 1994. p. 217–48.
- 151. Aschebrock Y. Different realities: challenging conventional ways of conceptualising delusions and hallucinations. Unpublished PhD thesis, University of Auckland, New Zealand. 2005.
- 152. Taylor GJ, Ryan D, Bagby RM. Toward the development of a new self-report alexithymia scale. Psychother Psychosom. 1985;44(4):191–9.
- 153. Vorst HCM, Bermond B. Validity and reliability of the Bermond Vorst Alexithymia Questionnaire. Pers Individ Dif. 2001;30:413–34.
- 154. Berger JM, Levant RF, McMillan KK, Kelleher W, Sellers A. Impact of gender role conflict, traditional masculinity ideology, alexithymia, and age on men's attitudes toward psychological help seeking. Psychol Men Mascul. 2005;6:73–8.
- 155. van't Wout M, Aleman A, Bermond B, Kahn RS. No words for feelings: alexithymia in schizophrenia patients and first-degree relatives. Compr Psychiatry. 2007;48(1):27–33.
- 156. Harrop C, Trower P. Why does schizophrenia develop at late adolescence? Clin Psychol Rev. 2001;21:241–66.
- 157. Seeman MV. Gender differences in schizophrenia. Can J Psychiatr. 1982;27:107–12.
- 158. Abrams LS. Contextual variations in young women's gender identity negotiations. Psychol Women Q. 2003;27:64–74.
- 159. Mendrek A. Sex and gender differences in mental health research. In: Cohen S, Banister E, editors. What a difference sex and gender make: a gender, sex and health research casebook. Ottawa: Institute of Gender and Health of the Canadian Institutes of Health Research; 2012.

160. Morgan VA, Castle DJ, Jablensky AV. Do women express and experience psychosis differently from men? Epidemiological evidence from the Australian National Study of Low Prevalence (Psychotic) Disorders. Aust N Z J Psychiatry. 2008;42(1):74–82.

- 161. Salem JE, Kring AM. The role of gender differences in the reduction of etiologic heterogeneity in schizophrenia. Clin Psychol Rev. 1998;18(7):795–819.
- 162. Rhodes JE, Jakes S. Correspondence between delusions and personal goals: A qualitative analysis. Br J Med Psychol. 2000;73:211–25.
- 163. Commission on the Status of Women. Guidelines for a gender analysis: human rights with a gender perspective implementing the convention on the elimination of all forms of discrimination against women (CEDAW). San Francisco: Commission on the Status of Women; 2000.
- 164. Connell R. Gender, health, and theory: conceptualizing the issue, in local and world perspective. Soc Sci Med. 2012;74:1674–83.
- 165. Doyal L. Gender and the 10/90 gap in health research. Bull World Health Organ. 2004;82(3):162.

# Transgenderism and Mental Health from a Non-pathologizing Perspective

7

Marina De La Hermosa and Elvire Agossou

### **Abstract**

In this chapter we will address transgenderism and mental health from a non-pathologizing perspective. First of all we will explain the reasons why we understand transphobia as a gender-based violence. Later on we will expose some of the competences that we think that mental health professionals attending trans people should have in the process of change from a diagnosing perspective to providing a non-pathologizing support via acquiring cultural competence in transgenderism and developing an intersectional perspective on their work.

On the third part of the chapter, we will address the gender-based violence that can affect trans women, including sexual violence, violence in the intimate partnership and transphobia in relation to minority stress.

In the last part of the chapter, we will discuss the negative (and some positive) consequences that minority stress might have in the mental health of trans people exposed to it.

Our goal with the chapter is to provide information that might help mental health professionals in more adequately supporting trans persons in their life journeys from a non-pathologizing viewpoint through understanding the consequences of transphobia in their experiences of the individual.

### 7.1 Introduction

In this chapter we will address transgenderism and mental health from a nonpathologizing perspective. First of all we will explain the reasons why we understand transphobia as a gender-based violence. Later on we will expose some of the

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competences that we think that mental health professionals attending trans people should have in the process of change from a diagnosing perspective to providing a non-pathologizing support via acquiring cultural competence in transgenderism and developing an intersectional perspective on their work.

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# 7.1.1 Situated Knowledge

Having had a training based in "scientific knowledge," we learned from knowledges presented to us as something that was published in magazines and books in which the information was written usually in third person, from a supposedly neutral, objective perspective, detached of values, politics, power or beliefs. But having had a training also in feminist and queer theory, we started learning about the questioning of whom is allowed to speak [1], who is producing knowledge and from which position [2] and if this knowledge is really as neutral as we thought [3]. Quoting Adrienne Rich: "Feminism means finally that we renounce our obedience to the fathers and recognise that the world they have described is not the whole world. Masculine ideologies are the creation of masculine subjectivity; they are neither objective, nor value-free, nor inclusively 'human'. Feminism implies that we recognise for us, the distortion, of male-created ideologies, and that we proceed to think, and act, out of that recognition" [4].

In therefore recognizing that this traditionally male-created science does not describe the whole world from an inclusively "human" perspective, it is needed for us to question: How are we going to produce knowledge? How are we going to use our voice when we have it and from where if we don't want to reproduce the pretended neutrality in science? Can we make a feminist science? Here is when the reflection of Donna Haraway and her proposal of situated knowledge can open some possibilities for us when she says: "Feminist objectivity is about limited location and situated knowledge, not about transcendence and splitting of subject and object" [5]. Situated knowledge is the knowledge that is not produced from a pretended neutral perspective but the one that makes explicit who is the author, from where is it produced and which power dynamics are present, in order to not pretend to be speaking about a universal truth inclusive of all the possible perspectives. We cannot avoid to always be in the intersections of power dynamics since it is undeniable that our origin, class or gender (to name a few) inevitably affect the discourse

that we produce. An importance is therefore placed on making these dynamics visible, as order to clarify the place from where knowledge is being produced.

That is the reason why we consider it important to be explicit about our relationship with the topic of this text and from which position is it written.

As one of the authors of this chapter (Marina de la Hermosa), I am a white, European, abled cis female. I studied medicine and afterwards specialized in psychiatry, but it was in the feminist activism context in which I got in touch with trans people for the first time, and it was when I started hearing about their experiences in the health system in Spain that I started to study and research about transgenderism, both from the medical and psychiatric texts, and reading the theoretical production, frequently critical, of the trans authors themselves. I also acquired clinical experience working for 6 years now in providing support to trans people who felt that they needed it in their process. So my discourse is crossed by the medical training but also by my learning in feminisms and by my clinical and theoretical training both in medicine and critical texts on transgenderism. I also consider important to make explicit that my position about on this topic is clearly depathologizing.

My situationality as another author of this chapter (Elvire Agossou) is as a West African abled cis female who completed university studies in mental health while simultaneously being engaged in a learning of gender and sexual diversity theories, gender politics studies and advocacy training for within the LGBT community in the USA and then the UK before moving to Spain. From within all these contexts, I have been in contact with various trans persons and communities and involved in providing psychotherapeutically related support to individuals that find themselves in moments of exploration and reconstruction of their own gender and identity as they see fit and more in tune with their experience of self.

# 7.1.2 Transphobia as a Gender-Based Violence

Considering that we understand transphobia as a gender-based violence, there are several reasons why we made the active decision not to be presenting this chapter from within the section of the book that addresses gender and psychopathology and instead is included in the part of the book that look to display and discuss gender as a multidimensional concept.

We do not understand transgenderism as a pathology but part of the diversity of human beings. Secondly, in considering the definition of gender-based violence given by the Council of Europe Convention on preventing and combating violence against women and domestic violence [6], gender-based violence is described in the following way: "[G]ender-based violence against women" shall mean violence that is directed against a woman because she is a woman or that affects women disproportionately[.] (Art. 3 d). If we want to have an intersectional perspective on the topic, we cannot reduce our investigation only to the experiences of cis, European, white women. Trans women are women, and if we want to have a more complete perspective on the topic of gender-based violence, we understand that it is important to also look at the experiences of trans women related to gender-based violence in

partnership settings and related to sexual violence, especially knowing that trans women tend to be more exposed to these type of violence than cis women [7].

Additionally, we also work with an understanding of gender-based violence in relation to gender norms and expectations: "Gender-based violence (GBV) is the general term used to capture violence that occurs as a result of the normative role expectations associated with each gender, along with the unequal power relationships between the two genders, within the context of a specific society" [8]. The sociologist and activist Miquel Missé defines transphobia [9] as the oppression that all the society suffers translating into the pressure for the men to be masculine and the women to be feminine. This includes a discrimination of the general society against trans persons, which the individuals can also incorporate in themselves, producing rejection of similar others, or self-rejection. Attending to this definitions, if we understand genderbased violence as the violence that occurs as the result of the normative role expectations associated with each gender, we have to understand transphobia, as the pressure for men to be masculine and women to be feminine, therefore a gender-based violence that also contributes to maintain the gender roles rigid, punishing people who express differences from what is expected and in that way contributing to maintain the system of privilege and oppression based in gender normativity.

Moreover, the aggressors in violence against women in the intimate partnership settings and transphobic aggressions have a similar profile, based on a rigid understanding of gender norms and traditional gender roles [10], so we understand that strategies to address one of the forms of violence can be useful to prevent the other.

### 7.1.3 Some Definitions

Here we will define some concepts that we will use throughout the text:

- Trans people or transgender people will be used as an umbrella term including people who self-identifies as transsexual but also people whose identity is different from the assigned one but outside of the gender binary male–female. This can include people who describe themselves as gender-bender, agender, genderqueer, nonbinary, gender fluid, gender variant, etc.
- Cis people will be understood as people who identifies with the gender assigned at birth.
- Gender identity is the intimate conviction of being of a gender (male, female or others).
- Gender expression is related to the presentation of the person in relation to the gender norms in their context. This gender norms can change depending of the cultural context, the generation of the person, the country, etc.
- Assigned gender will refer to the gender assigned to a person during an echography or at birth in relation to the aspect of their external genitalia.
- Cissexism: The assumption that a cisgender identity is more authentic or natural
  than a trans identity. The belief that a person's sex assigned at birth always
  remains their real gender (e.g. suggesting that a trans woman is "really a man" or
  a trans man is "really a woman") [11].

#### 7.2 The Role of the Mental Health Professional

## 7.2.1 From Diagnosing to Non-pathologizing Support

Understanding that we live in a transphobic cultural context, in which the transgressions of the gender norms are punished with different levels of aggression, we can understand, taking the concept from philosopher Judith Butler, that sometimes transgender lives are not always liveable/bearable lives. In her book *Undoing Gender* [12] she proposes that:

In the same way that a life for which no categories of recognition exist is not a livable life, so a life for which those categories constitute unlivable constraint is not an acceptable option.

The task of all of these movements seems to me to be about distinguishing among the norms and conventions that permit people to breathe, to desire, to love, and to live, and those norms and conventions that restrict or eviscerate the conditions of life itself. Sometimes norms function both ways at once, and sometimes they function one way for a given group, and another way for another group. What is most important is to cease legislating for all lives what is livable only for some, and similarly, to refrain from proscribing for all lives what is unlivable for some. The differences in position and desire set the limits to universalizability as an ethical reflex. The critique of gender norms must be situated within the context of lives as they are lived and must be guided by the question of what maximizes the possibilities for a livable life, what minimizes the possibility of unbearable life or, indeed, social or literal death.

We understand that part of our work as mental health professionals is about supporting people we work with, through progressively opening the space in their already ongoing process for more liveable lives. Historically, both psychologists and psychiatrists have been placed as the gatekeepers for trans persons needing medical interventions in their process, therefore placing on us the responsibility to design who is a "real transsexual" and who is not, based on the correlation of their gender expression with the gender norms in our cultural context [13]. If we try to trace the line of "real" transgenderism, we are also implicitly describing the appropriate gender norms for the cis population. Considering, for example, the diagnostic criteria for gender identity disorder in DSM IV, we can understand from it that certain types of clothing are more correct and expected to be for boys, and others for girls, and that for boys to enjoy playing rough and displaying a certain degree of aggressivity is sane and normal, in comparison to their counterpart, since with girls the accepted behaviours are opposite. We can also understand that depending of the assigned gender at birth, there will be playmates that would be more adequate than others. What is designed here is an establishment of the line of difference therefore describing and qualifying what is normality and, consequently, what is not. We consider this normality described by mental health professionals as limiting and barely livable, not only for trans persons but also for cis people and all others.

#### Diagnostic Criteria for Gender Identity Disorder, DSM IV TR [14]

- A. strong and persistent cross gender identification (not merely a desire for any perceived cultural advantages of being the other sex). In children, the disturbance is manifested by four (or more) of the following:
  - (1) Repeatedly stated desire to be, or insistence that he or she is, the other sex.
  - (2) In boys, preference for cross-dressing or simulating female attire; in girls, insistence on wearing only stereotypical masculine clothing.
  - (3) Strong and persistent preferences for cross sex roles in make-believe play or persistent fantasies of being the other sex.
  - (4) Intense desire to participate in the stereotypical games and pastimes of the other sex.
  - (5) Strong preference for playmates of the other sex. In adolescents and adults, the disturbance is manifested by symptoms such as a stated desire to be the other sex, frequent passing as the other sex, desire to live or be treated as the other sex, or the conviction that he or she has the typical feelings and reactions of the other sex.
- B. Persistent discomfort with his or her sex or sense of inappropriateness in the gender role of that sex. In children, the disturbance is manifested by any of the following: in boys, assertion that his penis or testes are disgusting or will disappear or assertion that it would be better not to have a penis or aversion towards rough-and-tumble play and rejection of male stereotypical toys, games and activities; in girls, rejection of urinating in a sitting position, assertion that she has or will grow a penis or assertion that she does not want to grow breasts or menstruate or marked aversion towards normative feminine clothing. In adolescents and adults, the disturbance is manifested by symptoms such as preoccupation with getting rid of primary and secondary sex characteristics (e.g. request for hormones, surgery or other procedures to physically alter sexual characteristics to simulate the other sex) or belief that he or she was born in the wrong sex.

In the new criteria in the DSM 5, it seems that there has been an attempt to focus more on the discomfort that some people can experience instead of only their gender nonconformity, therefore recognizing that some people do not include themselves in binary genders and also seemingly taking in account that this discomfort might change in the process. It can be observed that some steps towards the depathologization of the transgender experiences were indeed taken in the DSM 5; however that gender dysphoria still remains in a list of mental disorders and being inclusive of nonbinary experiences creates the double standard in recognition while continuing to pathologize.

Diagnostic criteria for gender dysphoria in adolescents and adults in DSM 5 [15]:

- A marked incongruence between one's experienced/expressed gender and assigned gender of at least 6 months' duration, as manifested by at least two of the following:
  - A marked incongruence between one's gender and primary and/or secondary sex characteristics (or in young adolescents, the anticipated secondary sex characteristics).
  - A strong desire to be rid of one's primary and/or secondary sex characteristics because of a marked incongruence with one's experienced/expressed gender (or in young adolescents, a desire to prevent the development of the anticipated secondary sex characteristics).
  - A strong desire for the primary and/or secondary sex characteristics of the other gender.
  - A strong desire to be of the other gender (or some alternative gender different from one's assigned gender).
  - A strong desire to be treated as the other gender (or some alternative gender different from one's assigned gender).
  - A strong conviction that one has the typical feelings and reactions of the other gender (or some alternative gender different from one's assigned gender).
- The condition is associated with clinically significant distress or impairment in social, occupational or other important areas of functioning.
- Two specifiers exist:
  - With a disorder of sex development (e.g. congenital adrenal hyperplasia).
  - Post-transition: the individual has transitioned to full-time living in the desired gender (with or without legalization of gender change) and has undergone (or is preparing to have) at least one cross sex medical procedure or treatment regimen (e.g. regular cross sex hormone treatment or gender reassignment surgery confirming the desired gender).
- Separate criteria now also exist for the diagnosis of children; however, children with gender dysphoria are not covered by this monograph. Gender dysphoria no longer comes under the category of sexual dysfunctions and paraphilic disorders and is considered a disorder in its own right. The term "gender identity disorder" has been replaced by "gender dysphoria" to avoid stigmatization.

From our perspective, we consider that, far from diagnosing "real" transsexuality, our work as mental health professionals wanting to offer non-pathologizing attention should be to support trans people who need it in their processes while staying aware that these very processes are being managed from within a transphobic society in which trans persons might have to face difficulties that in most of the cases would affect their mental health.

## 7.2.2 Cultural Competence

Cultural competence is a concept that is used especially in Anglo-Saxon contexts. It can be defined as the acquisition of specific knowledge, skills and attitudes with which to offer an appropriate, individualized and culturally sensitive treatment [16]. Minority collectives often develop their own cultural context precisely because of the experiences of exclusion from the normative cultural context and the lack of references with which to identify themselves. We believe that, in the same way that it is our responsibility as health professionals to continuously update ourselves on the techniques we use, similarly we should be working at clarifying and separating our dominant cultural narratives in order not to risk imposing them on the people with whom we work. The goal here is to acquire the competence to be able to give the best and most respectfully sensitive attention possible, especially when working with minority groups.

Considering the previously mentioned definition proposed by Miquel Missé [9], we can define transphobia as an oppression suffered by the whole of society and that translates into pressure for men to be male and women to be female. This also includes a discrimination of society in general towards trans people that they can also incorporate, producing rejection of similar others or rejection towards one's own self. Given that we have been educated in a structurally transphobic social context, unless otherwise adequately addressed and processed towards changing the tendency, it is not surprising that we have incorporated narratives and attitudes of this type in our way of relating to each other. Therefore, the first step to acquire this cultural competence is to learn about transphobia, how it works in the social context and how it can affect the people who suffer it. It is essential to work our own transphobic narratives and attitudes so that we do not run the risk of reproducing them inadvertently in the therapeutic context.

In addition, we consider important the work and reflection on gender issues that not only is explored in theoretical ways but also is involved in applying this reflection and learning to our own identities and gender expressions. Both aspects are often taken for granted, especially when we live in a normative context and identify ourselves as cis people. The closer our identity and gender expression are to the norm, the less we have felt the need to reflect on them. If we do not carry out this work of questioning and self-knowledge about our own individual process in relation to gender, the work with trans people, whose identity can by itself question the norms about gender in which we have built ourselves as cis people, could generate a negative countertransference through feelings that confront us to question our own identity, which we could act out on the other, due to lack of deliberately developed awareness.

Moreover, getting closer to the cultural contexts of trans people can include approaching their communities and learning the language in which these people name themselves, the first person narratives that they give of and about their own life experiences (which can be found in articles, videos, books, comics, blogs or social networks, etc.) [17–20]. It also facilitates knowing positive references of different trans experiences situated inside and outside of the medical system, as well as more learning about the available care resources (not just health resources but also associations, support groups and community advocacy spaces, etc.). There is also a

facilitation of staying more in tune with the information about the legal situation of trans people in our context and the trans policies that are being carried out. The more trans culture we have, the better we can support the people whom we are attending to.

Having the support of professionals who accompany and respectfully support minority groups is a factor of protection in itself form minority stress. A study conducted with trans people by Kattari et al. [21] find a consistent association between having mental health professionals trained to more adequately care for trans people and lower rates of depression and suicide in the people and communities that received this care, therefore showing the direct positive correlation between adequate culturally sensitive care and better mental health.

## 7.2.3 Intersectionality

To address discrimination when two axes of oppression coexist in the experience of the same person, such as the fact of being female and trans, we consider useful and imperative to work using an intersectional perspective.

We can trace the beginnings of the intersectionality concept in the text "A black feminist statement" of the black women's activist collective Combahee River Collective [22], in which they state that for them, the oppressions of class, gender, race and sexuality are simultaneous and far from being isolated experiences that are added to each other are interrelated.

Later, in the academic field, Kimberle Williams Crensaw [23] popularized the term "intersectionality", which later continued to be developed as a theory and used as a perspective in research and in different authors' work, as well as being an important concept from which activist proposals continue to be made.

The notion of intersectionality proposes that, instead of seeing the different inequalities as a sum of negative charges, we think of them as different axes of inequality that are related to each other in a dynamic way through the experience of the same person.

Thus, these axes will not work equally when a trans woman with bipolar disorder is in an LGBT group, in which she may not be able to talk about her psychic diversity, than when she is in a group of people with bipolar disorder, in which she may have to stay in the closet as being trans, or when she is at work, where both axes will be related to the difficulties that being a woman can pose in a work environment.

From this perspective, we will analyse psychic, sexual and gender diversity not as isolated elements that are added together but as intersectional axes that interrelate dynamically in the experience of each person.

One of the very valuable aspects of the intersectional perspective regarding our clinical practice is that they allow us to ask ourselves where in these axes of inequality we are at the time of caring for someone and how this can affect the therapeutic work. It is not the same if I, as a young woman, attend a 60-year-old man or if he is attended to by a male colleague. The axes will not impact in the same way if, as a white woman, I am attending a Roma person or if a psychologist who identifies himself as a nonbinary trans male is attending to me. There are additionally effects on the dynamics of

power depending, for example, on where we place ourselves in the consultation room (whether behind a table or not, etc.), depending on whether we are wearing a uniform that reveals a certain power position or not (like the white coat of a doctor, etc.).

All these variables place us in different and dynamic places in relation to the people we are attending to, and this can have an effect on the therapeutic relationship. Being aware of this can help us to rethink and process our own position in the therapeutic context and allow us to develop a more horizontal link in the therapeutic support that is being provided.

## 7.3 Gender-Based Violence and Transgender Women

We already previously stated and explained our understanding and consideration of transphobia as a gender-based violence; however trans women also have to face other gender-based violence related with the very fact of being women. We believe that frequently, when we investigate about gender and sexual violence in our context, we do it focusing usually on cis, white, European, abled women, without applying an intersectional perspective that includes other identities, for example, migrant, racialized, trans or women with functional diversity. We consider this to be a grave oversight especially when considering that these groups are impacted on other significant level due to the extra vulnerability they can face related to specific oppressions that applies. We are therefore choosing to address in the following section of our chapter, some characteristics of sexual violence and violence in the intimate partnership settings that can affect trans women.

## 7.3.1 Sexual Violence Against Trans Women

In the list of data that the Spanish public prosecutor office provides every year [24], there are no data on the sexual aggression to transgender women specifically, and it is difficult to find data about this in our context. However, in a review article analysing the different kind of aggressions against transgender population in the USA [25], it is shown that there is a high prevalence of sexual assault and rape against the trans population starting at a young age. The most common findings in the articles analysed by the authors are that among 50% of transgendered persons report unwanted sexual activity. Kenagy [26] also found a difference between trans women and men, whereas 69% of trans women disclose an experience of forced sexual activity, compared to 30% of trans men who reported the same. Additionally, observation is made to the fact that trans women seems to be exposed to sexual violence at an early age. The FORGE [27] report found that young gender-nonconforming people were particularly vulnerable to sexual violence, with the majority of incidents occurring before the age of 12 and then steadily declining with the age number.

When considering the perspective of the victim/survivor in relation to the motivation of their perpetrator, in most of the cases they consider that the motivation has been directed by the homophobia or transphobia of the perpetrator [28, 29] or was related to discrimination about the gender expression of the victim. Same as in sexual violence against cis women, the perpetrator is in a large number of cases a person that is known or close to the victim, including partners or family members.

Most of these assaults are not reported to the police. In Xavier et al. [30], they find that 83% of the victims of sexual assaults did not report them to the police, believably due to the high risk of re-victimization that the person might face if they do so. Moreover, in the FORGE [27] study, 4.9% of sexual aggressions reported were perpetrated by police and 5.9% by a social service or health care provider.

For some trans people, the lack of family support and the violence that they experience in their communities and countries of origin force them into a trans diaspora in the pursuit for safer communities and countries to live in. In these cases, the intersection of oppressions (womanhood, gender identity, racialized and migrant status) situates them in a highly vulnerable place in which it can be really difficult to get housing, work or support. Consequently, it is frequent that the only way of subsistence that they can find is to get involved in sex work, which is a context of high vulnerability for sexual violence, perpetrated by clients, the police or their own pimps [31]. As exposed in a study in the US context [32], trans people rejected by their families have higher risks of living as homeless or getting involved in sex work, with the risks that this might imply.

## 7.3.2 Intimate Partner Violence Against Trans Women

If we pay attention to the internal dynamics of violence in the partnership settings against trans women, we will find similar situations and characteristics as with cis women. We will observe the cycle of violence [33] or coercive persuasion [34] strategies developed by the aggressor. However, there are also some added characteristics in the violence dynamics that are going to be specific in the relationships in which the victim/survivor is a trans person.

We found only one revision study about intimate partner violence against trans population, developed in 2015 by Rodríguez Otero et al. [7]. Attending to their results, it is difficult to establish the prevalence of this kind of violence against trans people because of the lack of research studies and different designs of this type of violence. Their finding prevalence has been placed between 19% and 80%. Rodríguez Otero et al. find that the most vulnerable moment in which the violence can start is usually when the trans person initiates a transition process and the usual aggressor is the normative person, who uses the privilege of gender normativity to unbalance the difference of power in the relationship on their favour. The fact that being a trans person might implicate more social vulnerability and isolation, makes it easier to establish a violent relationship for the aggressor, and the victim/survivor is going to have even more difficulties to ask for help. There is yet again additional

vulnerability in cases of substances abuse, lack of economic resources, age range of the victim/survivor and migrant status of the trans person. It was also found that there is a high risk of the victims committing suicide, especially when the persons are of young age.

In the violent relationships against trans women, there are some characteristics noted to be very specific to this context. First of all, the aggressor might use the interiorized transphobia to harm and control, using threats like "No one wants trans people anyway, so you better stay with me" or "Who is going to believe you being trans", etc. There might also be threats of outing the identity of that person or the serological status "if you tell anyone I will go to your work and tell that you are trans". There might be also aggression strategies related to HIV, like threatening somebody with infecting them, ban the access to medication or threaten to not allow safe sexual practices [35]. Also, when the victim/survivor is part of the LGTBQ community and the aggressor too, there can be threats of defaming the person in the community, therefore forcing their exclusion from it. The aggressor does this knowing that in many cases the LGTBQ community can be the only social supporting network that the trans person might have; therefore losing access to it can have devastating consequences.

The legal recognition and protection of the violence as intimate partner violence depend on the countries, and it is also different depending on if the identity is recognized legally in identification papers or not. In some cases, the protection resources for women will accept trans women, in other cases it will depend on if their ID papers are changed and they are legally recognized as women, and in other cases they will not be accepted at all.

## 7.3.3 Transphobia and Minority Stress

We can define minority stress as the extra stress added to the stress of a person's habitual life as a consequence of being part of a stigmatized and minority social category [36]. For example, if we imagine a cis girl going to college for the first time, we can imagine that she will worry about her classes, about making friends and so forth. In the case of a trans girl, besides these more general worries, there will be the add doubt about whether or not to speak about her identity, the worry about what name will appear in the student lists or if she is going to be excluded or attacked, or in the cases where she prefer to not reveal her identity as trans, there will be a constant worry about being outed by situations or others without her consent. All these extra concerns and worries are part of the minority stress.

According to this model proposed by Meyer [37], we can identify different stressors as part of the minority stress:

(a) In the first place, there would be the real experiences of violence and discrimination [38]. Being trans implies a higher risk of neglect and physical and sexual abuse in childhood [39], and the rates of physical violence against trans people are also high. In the American context, Xavier et al. [30] report that 40% of the interviewed trans people in their study had physical aggression experiences,

- and the mean age of the first physical assault was at the age of 16. There are also high levels of harassment and verbal abuse that trans people receive [28] since their early ages. Bullying experiences at middle school and high school are also frequent and are known to have a direct effect on one's mental health [40, 41].
- (b) Secondly, coping with stigmatization implies an expectation of rejection and discrimination as a consequence of previous experiences of violence that generates hypervigilance, especially in public spaces and social interactions. For example, if a trans girl has had experiences of bullying at school, it is possible that, as a result she could develop hypervigilance, therefore beginning to "preventively" treat her peers defensively and sometimes aggressively. In these situations, they often call the parents to the school because their daughter is being aggressive, but when the previous situation is explored, there has been a history of being bullied. This expectation of aggression (based on experience) can greatly hinder social interaction for these people.
- (c) On the other hand, trans people in our context also live in a transphobic social environment, in which they can continually receive disqualifying messages about their identity which they may end up internalizing, assuming negative stereotypes about themselves. They may think that they are sick, defective, broken, immoral, unnatural or inherently bad and feel a great guilt for the discomfort their identity is making their families and environment feel (according to this logic, given that it is not their identity but the transphobia in the social context that produces this discomfort). This is called internalized transphobia [42].
- (d) Finally, many trans people have to live with the fear of being found out and outed as being trans, especially when in context where this is not known and can have significant negative consequences. There is also the fear and stress of being another person communicating about their identity without their consent or use this knowledge to actively oppress the trans person.

# 7.4 Consequences of Minority Stress in the Mental Health of Transgender Population

## 7.4.1 Depression, Anxiety, Substances Abuse, Eating Disorders and Suicidal Ideas

In a general way, as a consequence of minority stress, trans people will report higher and more frequent symptoms of depression and anxiety, suicidal ideas and substances abuse than the general population.

In the case of the symptoms of anxiety and depression, they are related to the intensity of the discrimination experienced by the person in their life, and the incidence increases with the proximity in time of experiences of transphobic aggressions [37].

In relation with anxiety disorders, it is frequent to find social anxiety in trans population related to the experiences of aggression in the social context that they can experience [43].

It has been pointed out that there is a high prevalence of substances abuse in transgender women [44]. In a prospective study of 3 years with transgender women in New York, Nuttbrock et al. [45] find that more than three fourths of the study participants (230 trans women) were using alcohol or some other substance, and about one third indicated polysubstance use. They find associations of the substance abuse with internalized stigma and experiences of transphobic abuse. Symptoms of depression were also found associated with higher substance abuse.

The suicidal ideas, which in some cases could be related to a complex posttraumatic stress disorder, are also related to experiences of sexual or physical abuse in childhood and bullying [46]. We can identify a higher risk in the moment of deciding to reveal the identity and also if the trans person who is around adolescence, when the pressure to adapt to gender norms becomes stronger and more oppressive, tries to negate their identity and adapt to the expected gender norms. Rejection by the family or a recent experience of transphobic aggression is also factors that increase the risk.

We can also find eating disorder symptoms' case studies described in the bibliographic references [47], but in our clinical practice we found a higher prevalence of eating disorders in trans preadolescents and adolescents related in many cases with worries around their bodies but also an attempt to use malnutrition which is a harmful but can be seen as an effective way to delay a sexualization and pubertal development that is not desired.

In some cases we will find self-injury behaviours, with a high incidence in trans population that is higher in trans males over trans females and can be related to complex posttraumatic stress disorder [48].

## 7.4.2 Complex Posttraumatic Stress Disorder

In the last years, the model of understanding of the posttraumatic stress disorder proposed by the DSM 5 [15] can be found insufficient to address the complexity of the consequences that a continued stressful situation can create in a person.

In this context, there is a proposal for understanding two different types of stressful categories of events:

- (a) Stress type I: punctual and assumable, like a traffic accident in a person without previous risk factors.
- (b) Stress type II: chronic, prolonged in time or associated to a situation of extreme terror, like it could be a persistent situation of gender violence in the intimate partnership [49].

The proposal as a model of comprehension of type II stress could be the Disorder of Extreme stress (DESNOS) that Judith Herman develops in her book *Trauma and Recovery* [50]. In this text, she addresses the symptoms that appear in people that have lived big catastrophes or torture situations, putting them in relation with the ones that appear in survivors of gender violence or child abuse. Herman develops the following diagnostic proposal:

- I. Alteration in Regulation of Affect and Impulses (A and 1 of B-F required)
  - A. Affect Regulation (2)
  - B. Modulation of Anger (2)
  - C. Self-Destructive
  - D. Suicidal Preoccupation
  - E. Difficulty Modulating Sexual Involvement
  - F. Excessive Risk-taking
- II. Alterations in Attention or Consciousness (A or B required):
  - A. Amnesia
  - B. Transient Dissociative Episodes and Depersonalization
- III. Alterations in Self-Perception (Two of A–F required):
  - A. Ineffectiveness
  - B. Permanent Damage
  - C. Guilt and Responsibility
  - D. Shame
  - E. Nobody Can Understand
  - F. Minimizing
- IV. Alterations in Relations With Others (One of A–C required):
  - A. Inability to Trust
  - B. Revictimization
  - C. Victimizing Others
- V. Somatization (Two of A–E required):
  - A. Digestive System
  - B. Chronic Pain
  - C. Cardiopulmonary Symptoms
  - D. Conversion Symptoms
  - E. Sexual Symptoms
- VI. Alterations in Systems of Meaning (A or B required):
  - A. Despair and Hopelessness
  - B. Loss of Previously Sustaining Beliefs

We know that trans youth have a higher risk of suffering type II stress events in their childhood (neglect and physical or sexual abuse), and bullying could be considered a type II stress event too. Therefore mental health professionals working with the trans population might find frequently similar symptoms in our usual practice, in adolescents and also in adults. In some cases, these symptoms are understood as Borderline Personality Disorder, and some professionals can use these diagnoses to delay the access of trans persons to medical procedures when they need it, under the assumption that a person suffering Borderline Personality Disorder is not capable of identifying their own identity clearly. We understand that some of the medical procedures that trans people could need might need self-care abilities that a person in crisis might not have, and this is something we would need to address with them. But as it is stated in the Standards of Care for the health of Transsexual, Transgender and Gender Nonconforming People [51], being diagnosed of a mental disorder should not be a factor of exclusion for the access to medical procedures.

## 7.4.3 Other Consequences in the Mental Health

It is usual to see reflected in a victimizing representation of trans people in the media, mainly when they are young, as little heroes and heroines that are going to have to face great difficulties in their lives. There are narratives about how dramatic and hard their experiences are going to be, with a focus place on all the negative experiences and difficulties they will be facing while living as a trans person in a society that does not respect them. Without denying that having a trans live in a transphobic society can be a challenging and difficult experience, we think that if we only attend to that part of the experience, we can fall "in the danger of a single story", to quote writer Chimamanda Ngozi Adichie [52]. This means a presentation of only a plane, one-dimensional and negative-focused narrative about trans experiences. It is with this awareness that we want to also take space to reflect here on other aspect of the trans experiences which can also frequently positively affect the mental health of trans people.

One very important positive aspect of this process is the resilience [42, 53] that some people develop, including the ability to develop creative strategies to face stressful situations which they will also be able to use in other moments of their lives.

In the case of young people, having to face intellectually and emotionally complex situations and finding answers to questions that a lot of adult persons do not take the time to ask themselves, it is frequent to find cases of early maturity. This comes with the positive aspect of the early acquisition of abilities which they will be able to use during their lives but can also involve the risk of missing out on some aspects of childhood and adolescence that are important to experience.

Moreover, the trans experiences, mostly when the person is in contact with support groups and communities, can have as a consequence the development of positive values shared with a community, like respect to diversity, or the importance of mutual support. In some cases, people can live the experience from a trans pride position [54], with the possibilities to remark the positive and enriching aspects of the process, for the trans person and for the people around them.

#### 7.5 Conclusion

In this chapter we tried to address trans experiences from a non-pathologizing perspective, aiming to offer a different view of their mental health support needs. We tried to show a perspective less-centred on diagnosis and more on the consequences that transphobia and other gender-based violence could have in the mental health of trans persons. It is known that having mental health providers that are trained in attending trans population is a prevention factor for depression and suicide [21], so we would like to encourage people reading this chapter to continuously, adequately and sensitively engage the information available about the trans population in order to promote a higher safety and better support for the trans people being attended and supported in care services. We also know that having the support of their families and communities and access to the medical procedures that some trans people might

need is also protective for their mental health [55]; therefore we believe that as mental health professionals, we should always keep it in mind as we interact with the persons involved in supporting others in their life processes. As reported in the Standards of Care of the WPATH [51], delaying or denying the access to medical procedures to trans people is never innocuous in their experiences, therefore exposing them to higher risk of aggression because of their gender identity. We believe our work as mental health professionals should not be focused on granting the access or not to medical procedures but supporting the trans people we work with in a way in which they can have more livable lives.

#### References

- Spivak GC. Can the subaltern speak? Repr Williams Christman Eds Conomial Discourse Postcolonial Theory Harvest Wheatsheaf 9. 1993.
- García Dauder, S., Pérez Sedeño, E. Las "mentiras" científicas sobre las mujeres. [citado 13 deseptiembre de 2018]. https://www.catarata.org/libro/las-mentiras-científicas-sobre-las-mujeres\_46045/
- 3. Foucault M. The history of sexuality. 1st American edn. New York: Pantheon Books; 1978. 1 p.
- 4. Rich A. On lies, secrets, and silence: selected prose, 1966–1978. 1st ed. New York: Norton; 1979. 310 p.
- Haraway, Donna. Situated knowledges: the science question in feminism and the privilege of partial perspective on JSTOR. [citado 10 de septiembre de 2018]. https://www.jstor.org/ stable/3178066?seq=1#page\_scan\_tab\_contents
- 6. Council of Europe Convention on Preventing and Combating Violence against Women and Domestic Violence. Koninklijke Brill NV; [citado 6 de noviembre de 2018]. http://primarysources.brillonline.com/browse/human-rights-documents-online/council-of-europe-convention-on-preventing-and-combating-violence-against-women-and-domestic-violence;hrd hrd99532014005
- Otero LMR, Carrera Fernández MV, Lameiras Fernández M, Rodríguez Castro Y. Violencia en parejas transexuales, transgénero e intersexuales: una revisión bibliográfica. Saúde E Soc. 2015;24(3):914–35.
- 8. Bloom SS. Violence against women and girls. A compendium of monitoring and evaluation indicators. Chapel Hill: The University of North Carolina; 2008.
- 9. Missé i Sánchez M. Transexualidades: otras miradas posibles. Barcelona: Egales; 2013.
- 10. Costa PA, Davies M. Portuguese adolescents' attitudes toward sexual minorities: transphobia, homophobia, and gender role beliefs. J Homosex. 2012;59(10):1424–42.
- 11. Trans Terms: About Us: TENI. [citado 25 de septiembre de 2018]. http://teni.ie/page.aspx?contentid=139
- 12. Butler J. Undoing gender. New York; London: Routledge; 2004. 273 p.
- 13. De la Hermosa M. Repensando los orígenes de la disforia de género. Rev Estud Juv. 2013;103:33-50.
- American Psychiatric Association. Manual diagnóstico y estadístico de los trastornos mentales. Barcelona: Masson; 2002.
- American Psychiatric Association, American Psychiatric Association, editores. Diagnostic and statistical manual of mental disorders: DSM-5. 5th edn. Washington, DC: American Psychiatric Association; 2013. 947 p.
- 16. Qureshi Burckhardt A, Collazos Sánchez F. El modelo americano de competencia cultural psicoterapéutica y su aplicabilidad en nuestro medio. Papeles Psicólogo. 2006 [citado 16 de febrero de 2018];27(1). http://www.redalyc.org/resumen.oa?id=77827107

- florenciapmarano. Real life test—Test de la Vida Real. [citado 21 de febrero de 2018]. https://www.youtube.com/watch?v=yrgrZOR\_-3U
- 18. Missé M, Coll-Planas G, editores. El género desordenado: críticas en torno a la patologización de la transexualidad. Barcelona: Egales Editorial; 2010. 286 p. (Colección G).
- 19. Llopis MC. Construcciones identitarias. Work in progress. Barcelona: Bellaterra; 2017.
- 20. Assigned Male. [citado 21 de febrero de 2018]. http://assignedmale.tumblr.com/?og=1
- 21. Kattari SK, Walls NE, Speer SR, Kattari L. Exploring the relationship between transgender-inclusive providers and mental health outcomes among transgender/gender variant people. Soc Work Health Care. 2016;55(8):635–50.
- Platero Méndez R. Intersecciones: cuerpos y sexualidades en la encrucijada: temas contemporáneos. Barcelona: Bellaterra; 2012.
- 23. Cho S, Crenshaw KW, McCall L. Toward a field of intersectionality studies: theory, applications, and praxis. Signs J Women Cult Soc. 2013;38(4):785–810.
- Ministerio del Interior. Estadísticas de Criminalidad primer trimestre 2018. [citado 6 de noviembre de 2018]. https://estadisticasdecriminalidad.ses.mir.es/
- 25. Stotzer RL. Violence against transgender people: a review of United States data. Aggress Violent Behav. 2009;14(3):170–9.
- 26. Kenagy GP. Transgender health: findings from two needs assessment studies in Philadelphia. Health Soc Work. 2005;30(1):19–26.
- 27. FORGE. [citado 6 de noviembre de 2018]. https://forge-forward.org/
- 28. Witten TM. Life course analysis—the courage to search for something more. J Hum Behav Soc Environ. 2004;8(2–3):189–224.
- 29. Xavier JM, Bobbin M, Singer B, Budd E. A needs assessment of transgendered people of color living in Washington, DC. Int J Transgenderism. 2005;8(2–3):31–47.
- Xavier J, Honnold JA, Bradford J. The health, health related needs, and lifecourse experiences of transgender Virginians: (544442014-001). American Psychological Association; 2007 [citado 6 de noviembre de 2018]. http://doi.apa.org/get-pe-doi.cfm?doi=10.1037/e544442014-001
- 31. Valera RJ, Sawyer RG, Schiraldi GR. Violence and post traumatic stress disorder in a sample of inner city street prostitutes. Am J Health Stud. 16(3):149–55.
- 32. Durso LE, Gates GJ. Serving our youth: findings from a national survey of services providers working with lesbian, gay, bisexual and transgender youth who are homeless or at risk of becoming homeless. 12 de julio de 2012 [citado 6 de noviembre de 2018]; https://escholarship.org/uc/item/80x75033
- 33. Walker LE. The battered woman. New York: Harper & Row; 1979. 296 p.
- 34. Escudero, A.; Polo, C.; López, M. y Aguilar, L. The coercive persuasion, an explanatory model of the stay of women in a situation of dender-based violence: II: the emotions and the violence strategies. Rev Asoc Esp Neuropsiq 2005;96:59-91.
- 35. Ard KL, Makadon HJ. Addressing intimate partner violence in lesbian, gay, bisexual, and transgender patients. J Gen Intern Med. 2011;26(8):930–3.
- 36. Meyer IH. Minority stress and mental health in gay men. J Health Soc Behav. 1995;36(1):38–56.
- 37. Meyer IH. Prejudice, social stress, and mental health in lesbian, gay, and bisexual populations: conceptual issues and research evidence. Psychol Bull. 2003;129(5):674–97.
- 38. Reisner SL, White Hughto JM, Gamarel KE, Keuroghlian AS, Mizock L, Pachankis JE. Discriminatory experiences associated with posttraumatic stress disorder symptoms among transgender adults. J Couns Psychol. 2016;63:509–19.
- 39. Schneeberger AR, Dietl MF, Muenzenmaier KH, Huber CG, Lang UE. Stressful childhood experiences and health outcomes in sexual minority populations: a systematic review. Soc Psychiatry Psychiatr Epidemiol. 2014;49(9):1427–45.
- Toomey RB, Ryan C, Diaz RM, Card NA, Russell ST. Gender-nonconforming lesbian, gay, bisexual, and transgender youth: school victimization and young adult psychosocial adjustment. Dev Psychol. 2010;46(6):1580–9.
- 41. Platero R. Transexualidades: acompañamiento, factores de salud y recursos educativos. Barcelona: Bellaterra; 2014.

- 42. Scandurra C, Bochicchio V, Amodeo AL, Esposito C, Valerio P, Maldonato NM, et al. Internalized transphobia, resilience, and mental health: applying the psychological mediation framework to Italian transgender individuals. Int J Environ Res Public Health. 2018 15(3). [citado 6 de noviembre de 2018]. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5877053/
- 43. Bergero-Miguel T, García-Encinas MA, Villena-Jimena A, Pérez-Costillas L, Sánchez-Álvarez N, de Diego-Otero Y, et al. Gender dysphoria and social anxiety: an exploratory study in Spain. J Sex Med. 2016;13(8):1270–8.
- 44. US Department of Health and Human Services; Substance Abuse and Mental Health Services Administration; Center for Substance Abuse Treatment. A provider's introduction to substance abuse treatment for lesbian, gay, bisexual, and transgender individuals: (435552005-001). American Psychological Association; 2001 [citado 5 de noviembre de 2018]. http://doi.apa.org/get-pe-doi.cfm?doi=10.1037/e435552005-001
- 45. Nuttbrock L, Bockting W, Rosenblum A, Hwahng S, Mason M, Macri M, et al. Gender abuse, depressive symptoms, and substance use among transgender women: a 3-year prospective study. Am J Public Health. 2014;104(11):2199–206.
- 46. Virupaksha HG, Muralidhar D, Ramakrishna J. Suicide and suicidal behavior among transgender persons. Indian J Psychol Med. 2016;38(6):505–9.
- 47. Vocks S, Stahn C, Loenser K, Legenbauer T. Eating and body image disturbances in male-to-female and female-to-male transsexuals. Arch Sex Behav. 2009;38(3):364–77.
- 48. Claes L, Bouman WP, Witcomb G, Thurston M, Fernandez-Aranda F, Arcelus J. Non-suicidal self-injury in trans people: associations with psychological symptoms, victimization, interpersonal functioning, and perceived social support. J Sex Med. 2015;12(1):168–79.
- 49. Pérez-Sales P, editor. Trauma, culpa y duelo: hacia una psicoterapia integradora: programa de autoformación en psicoterapia de respuestas traumáticas. Bilbao: Desclée de Brouwer; 2006.. 596 p. (Biblioteca de psicología)
- Herman JL. Trauma y recuperación: cómo superar las consecuencias de la violencia. Pozuelo de Alarcón (Madrid): Espasa; 2004.
- 51. World Professional Association for Transgender Health. Normas de Atención para la Salud de las personas Trans y con Variabilidad de Género. 2012. http://www.wpath.org/site\_page.cfm?pk\_association\_webpage\_menu=1351
- 52. Chimamanda Ngozi Adichie: Chimamanda Adichie: El peligro de la historia única | TED Talk | TED.com. [citado 17 de febrero de 2018]. https://www.ted.com/talks/chimamanda\_adichie\_the\_danger\_of\_a\_single\_story/transcript?language=es
- 53. Méndez R (Lucas) P. La agencia de los jóvenes trans\* para enfrentarse a la transfobia. Rev Int Pensam Político. 2014;9:183–93.
- 54. Corrigan PW, Kosyluk KA, Rüsch N. Reducing self-stigma by coming out proud. Am J Public Health. 2013;103(5):794–800.
- 55. Olson KR, Durwood L, DeMeules M, McLaughlin KA. Mental health of transgender children who are supported in their identities. Pediatrics. 2016;137(3):e20153223.

## Gender and Psychological Differences: Gender and Subjectivity

8

María Dolores Avia and Ma. Luisa Sánchez-Bernardos

#### **Abstract**

Different units of analysis to study gender differences in psychological domains have been proposed. Basically, the present chapter is focused on the trait domain, characteristic adaptations, the objective biography, self-schemas, and character strengths. The main results point to some differences between men and women at the trait level, but the magnitude of this difference is generally small. Although the basic tendencies that represent traits are strongly dictated by heredity, some cultural and environmental influences have been signaled. Vital pathways, different patterns for managing work and the private life, interpersonal ways of treating others, etc. are among the different adaptations that men and women have to accomplish. At this level more gender differences have been found, although they are not stable because of cultural and historical changes. Research has found male/female differences in the structure of the self-schema, and data on some of the many character strengths also have appeared. According to all this, it is argued that differences might also be found in the objective biography of men and women. The conclusion, however, is that we should not emphasize peculiarities, since in the five domains of personality the differences are generally not large.

#### 8.1 Introduction

Over the last years, gender studies have become increasingly popular. Feminist orientations, sociological perspectives, and psychological models, among others, offer disparate points of view about the differences between male and females, many

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times impregnated with ideological connotations that do not help researchers to properly understand this topic. Meanwhile, public opinion holds that gender differences are associated with deep psychological differences and with different ways to structure subjectivity. How much is true in these approaches in society? Are they only social stereotypes about men and women, or do they have a firm basis?

Such types of questions require a complex, interactional answer that could not be possibly set forth here. Instead we will offer some data, some of them from our own research studies, which will give us some hints to examine the complex reality of gender.

If we want to study psychological differences, we have to start by choosing the units of analysis, that is, the kind of basic variables we are going to use. The different units may be all appropriate, but they will provide different information about our subject. One unit of analysis that has been extensively studied is the concept of *trait*. A trait refers to the typical ways in which we behave, think, and feel, often showing that people are consistent over time and situations. A much respected area in personality deals with the study of personality traits. A researcher [1] has made the point that in all lives there is a leitmotiv and he has referred to traits as that which provides the *leitmotiv* in our lives. Either if we are a curious person, changing often from one interest to another, or an ill-tempered individual with frequent uncontrolled bursts of anger, the leitmotiv of our lives would appear once and again: in one case, the tendency to go from initial enthusiasm to boredom and in the other, the proclivity to be easily disturbed.

## 8.2 Gender Differences in Personality Traits

Psychological studies have shown that personality differences can be reduced to a few general traits. One group of studies (the lexical approach) analyzed the way that ordinary people talk about personality. Careful analysis of those personality adjectives found five main global traits or dimensions which were called The Big Five [2]. There is growing evidence that people in diverse cultures, using very different languages, view individual differences in personality traits in ways similar to the big five.

Personality researchers have investigated this five-factor personality structure, and most of them have used the NEO-PI-R developed by Costa and McCrae [3]. In 2005 McCrae and Terracciano [4] conducted a cross-cultural study in which 50 cultures (our research group was one of them) took part with a total of 11,985 subjects. The personality traits were assessed through the personality questionnaire NEO-PI-R (R form) which measures the factors of neuroticism, extraversion, openness to experience, agreeableness, and conscientiousness. Neuroticism is the susceptibility to experience emotional instability and strong negative emotions such as anxiety, anger, sadness, frustration, or hostility, to be easily worried, and to have unrealistic thoughts and ideas; its opposite is emotional stability. Extraversion is the tendency to show behaviors typical of a sociable, energetic, enthusiastic person, who is active, talkative, optimistic, and fun-loving. The opposite to that is

introversion, a tendency to be aloof and reserved. Openness is the tendency to feel curiosity, to show open and imaginative behaviors, and to be interested in new ideas and unconventional values; conventional, down-to-earth people would be in the other end of the trait. Agreeableness involves a tendency to behave in a kind and pleasant way to others and to be compassionate, empathetic, soft-hearted, trusting, and attentive, just the opposite of the other pole, which shows cynical, suspicious, and uncooperative attitudes. A person with high conscientiousness is likely to be organized, hard worker, punctual, achiever, and persistent, while low conscientiousness involves being aimless, unreliable, lazy, and negligent.

Besides the general score in the trait, the NEO-PI-R offers also scores in specific aspects that are called facets. Every trait is composed of six facets. In the McCrae et al. study, the five-factor structure emerged not only in the combined sample but also in the great majority of cultures, showing that the same personality traits appear in very different environments. Regarding gender differences, considering the whole sample, it was found that women were higher than men in the big five dimensions: they were more neurotic, extravert, open, agreeable, and conscientious than men. The differences were more pronounced in the traits of neuroticism and agreeableness. In relation to facets, men were found to be higher than women in assertiveness, sensation seeking, openness to ideas, and competence, while women exceeded men in anxiety, vulnerability, openness to feelings, and sensitivity to others.

Some female/male differences were modulated by age. That was the case of achievement motivation: in older people, men were more achievers than women, but in younger subjects female scores in achievement motivation were higher than men's, perhaps revealing a generational effect of an increase in women's professional aspirations over the world. Other male/female differences were modulated by the gender of the person who made the assessment. Thus, women (higher in agreeableness) offered more positive assessments of others, especially when they assessed other women (i.e., they described them as lower in neuroticism and higher in agreeableness).

The above differences, obtained with the combined sample of 50 countries, were obtained also when the analyses were carried out in the specific countries that participated in the study. Thus, it was found that differences between men and women were systematic and consistent with social stereotypes. They appeared despite variations in culture, age, and methods (self-report/other report data). Therefore, as personality traits are concerned, it can be said that gender differences seem to be universal. The amount of these differences, however, is quite small (0.5 standard deviation). Recently, Vianello and his coworkers [5] have found even smaller sizes of the differences using implicit measures of traits in a powerful sample of more than 14,000 participants.

These results have been replicated. Smichtt et al. [6] found the same gender differences of small amount in 1 sample of more than 17,000 subjects based on a cross-cultural study in which 55 countries participated. The most interesting part in the study was the replication of the counterintuitive result that gender differences in personality measures, evaluated by the five-factor inventory BFI [7], *increased* with

the level of human development and egalitarian opportunities of the countries. Moreover, high levels of human development were the best predictors of the gender differences in personality. Both in self-report measures as in other report, African and Asian countries showed the smallest gender differences, while in North America and European countries, the differences were higher. Although the authors tried to explain the possible reasons of this result, in our opinion none of them was satisfactory.

The differences between men and women found by McCrae y Terraciano in the big five personality factors were also found by Weisberg et al. [8] who evaluated gender differences in personality structure at a less general level than traits but more general than facets ("aspects," as they called them). Based on the results of factor analysis carried out on a group of 2643 persons residents in Canada, two "aspects" were found for each trait: volatility and withdrawal for neuroticism, enthusiasm and assertiveness for extraversion, intellect and openness for openness to experience, industriousness and orderliness in conscientiousness, and compassion and politeness for agreeableness. Women scored higher than men in enthusiasm, compassion, politeness, orderliness, volatility, withdrawal, and openness, while men were higher in assertion and intellect. Although it was the authors' claim that with this strategy gender differences are higher as compared to the trait level, the significant differences found in the study continued to be quite low.

It is well accepted that temperament is a developmental precursor to adult personality. Are differences in personality preceded by differences between boys and girls in temperamental variables? Else-Quest and others [9] used meta-analytic techniques to estimate the magnitude of gender differences of 35 dimensions and 3 factors of temperament in children from 3 months to 13 years. The study revealed an overall better ability of girls to regulate their attention and a greater capacity to control inappropriate responses and behaviors than boys. The factor of effortful control, composed of dimensions of attention regulation, inhibitory control, and perceptual sensitivity, showed a large difference favoring girls, who outperformed boys by a full standard deviation. The subcomponents of inhibitory control and perceptual sensitivity showed moderate differences favoring girls, who showed also greater awareness of subtle environmental changes. The study also indicated that the systematic differences in anxiety and depression found between men and women not seem to be rooted in early gender differences, since boys and girls were no different in negative affectivity, a precursor of the neuroticism factor in personality. Finally, small differences favoring boys were found in the surgency factor, linked to the trait of extraversion, indicating that boys are slightly more active, are less shy, and derive more pleasure than girls from high-intensity stimuli.

Different studies have tried to examine the relation of the five personality factors with mental health, psychological adjustment, and well-being. In general, the most predictive factor is neuroticism, which shows a systematic positive relation to maladjustment, low well-being, and poor mental health. Neuroticism predisposes individuals to a wide range of psychiatric disorders: generalized anxiety disorder, panic disorder, phobias, major depression, dysthymic disorder, and borderline personality disorder are diagnosed more often in women than in men. Extraversion, on the

contrary, emerges as a protective factor, being consistently associated to higher well-being and good mental health. DeShong and others [10] showed that personality factors and domains measured with the Five Factor Model are able to account for variance of suicide ideation above and beyond demographic variables such as age, gender, and socioeconomic status. High neuroticism was associated with both current suicide ideation and a history of suicide ideation and was positively related to two risk factors for suicide: extreme social disconnection (thwarted belongingness) and the belief that one's existence is a burden for others (perceived burdensomeness). Individuals who reported current suicide ideation had higher scores on neuroticism and lower levels of extraversion than those with past suicide ideation or no suicide ideation and also higher levels of neuroticism facets (all but impulsiveness) and lower levels of three facets of extraversion (activity, excitement seeking, and positive emotions). Personality predicted more than 23% of variance for thwarted belongingness and around 15% of the variance for perceived burdensomeness. It appears that high neuroticism and low extraversion and agreeableness may increase the probability to experience strong feelings of social disconnection.

The openness factor is basically unrelated to mental health, although specific facets of it may be related to maladjustment, and both agreeableness and conscientiousness show positive connections, although generally quite small, with well-being and adjustment.

Research suggests strong associations of mental health and well-being with the construct of self-compassion, an adaptive way of relating to the self when considering personal inadequacies or difficult life circumstances. Using meta-analytic techniques, a study examined gender differences in self-compassion across 71 journal articles and dissertations [11]. Results revealed that males had slightly higher levels of self-compassion than females, and the difference was larger in samples with a higher percentage of ethnic minorities. Although this result should be taken into account, gender differences in self-compassion should not be overemphasized, since they are not large in size.

Feingold [12] conducted four meta-analyses to examine gender differences in personality in the literature (1958–1992) and in normative data for well-known personality inventories (1940–1992). The results are consistent with those of the big five studies: males were found to be more assertive and had slightly higher self-esteem than females. Females were higher than males in extraversion, anxiety, trust, and, especially, tender-mindedness. Gender differences in personality traits were generally constant across ages, years of data collection, educational levels, and nations.

In a much smaller study, Carrillo and others [13] made participants (half of them male, half female) to fill the NEO-PI-R and the Beck Depression Inventory. We were interested in the role that one of the big five factors, the trait of openness to experience, played in the development of depression symptoms. It was found that one specific facet of the trait, openness to actions, was negatively related to experiencing depression symptoms (it appeared to be adaptive), while the facet of openness to fantasy functioned as a predictor of dysphoric symptoms in the case of women, who score higher in this facet.

It is well known that across the lifespan women are twice as likely as men to suffer from depression. Carrillo et al. [14] found a cluster of personality aspects that was related to the probability of having symptoms of depression, most of them related to experiencing high negative emotions. The authors attribute this result to women having learned more negative emotional responses to more life stimuli than men.

A very different personality trait that has received attention and shows differences between men and women is Snyder's self-monitoring construct, a less comprehensive trait than the big five categories, which belongs to a long tradition in psychology, the dramaturgical model [15, 16]. According to it, we behave the way others expect us to, we are alert to subtle cues in our social environment, and, in general, we engage in self-presentation. Research has examined interpersonal differences in the degree in which persons are able to control their expressive behavior: the emotional, nonverbal cues emitted; and the adequacy of their representations in different contexts. All of this is encompassed in the self-monitoring construct developed by Snyder in 1974. Typical high self-monitors are highly concerned with the situational and the interpersonal appropriateness of their social behavior, are particularly sensitive to the expression and self-presentation of relevant others in social situations, and use this as guidelines for regulating and controlling their own selfpresentation [17]. Low self-monitors, on the contrary, are more guided by internal aspects, are less concerned with the social environment surrounding them, and value more the congruence between what they feel, think, and do. Low selfmonitors, in turn, appear to have a lower repertoire of self-presentation skills and lower expressive control than high self-monitors, who show a rich range of skills to present themselves in society and a good ability to control their performance.

Many studies have been conducted to explore the consequences of these two interpersonal orientations. Data show that both the relation attitude-behavior (the congruence between what we believe and what we do) and the consistency across situations are mediated by self-monitoring: congruence is higher for the low selfmonitor, and so is behavioral consistency. Executives, business managers, and salesmen, among others, used to score high in self-monitoring; accountant or researchers tend to score lower. As readers might have guessed, men frequently have higher scores on the self-monitoring scale than women (Rojo and Carrillo [18]). One problem with high self-monitors is that usually they do not communicate their internal states; the problem with low self-monitors is their dependency on their internal states and the poor control of them when negative. Several studies have found a significant relation between self-monitoring and psychological maladjustment, basically social anxiety and negative emotions [19]. There are reasons to expect that those subjects with high coherence and high situational consistency would be especially vulnerable to develop depressive symptoms in presence of stressful events. Some results consistent with this hypothesis have been found [19].

A very relevant part of research on self-monitoring concerns the social worlds of the two groups. Results suggest two different orientations toward friendship and sexuality: friends of high self-monitors are chosen "to do activities," while low selfmonitors have "friends for everything." [20] In terms of sexuality, the first group shows "unrestricted" attitudes and values toward sexuality, while low self-monitors have relationships more monogamous and faithful [21]. In a replication of the last study, Avia et al. [22] assumed that sexual orientation would be explained in part by gender. We considered that the social/interpersonal words, as well as the sexual orientation of men and women are often different, due in part to the role structure in western culture. Our hypothesis was that a restricted sexual orientation, defined by the need to have close emotional links and commitment within the sexual relation, would be related to being a female, lower age, and a low score in self-monitoring. Results were consistent with our hypotheses, being gender the most discriminative variable.

To conclude this section, in many studies differences between women and men are found at the trait level, but the size of them is generally small. Largest differences have been found in the domain of motor performance, some measures of sexuality (masturbation and attitudes for uncommitted relationships), and physical aggression [23]. The cause of those differences is not easy to be explained. Costa and McCrae have a clearly biologicist viewpoint, and results in psychological literature are consistent with it. Other researchers, however, are more cautious: "Drawing conclusions about differences between men and women is a very tricky matter. Even if one finds such differences, is hard to interpret them. Men and women differ biologically, but also differ socially. They often develop within societies which do or treat men and women unequally. Gender differences may be socially constructed rather than being biologically caused" [24]. In fact, some studies show that personality traits can change according to historical conditions. In one longitudinal study, Twenge [25] analyzed the mean levels of anxiety and neuroticism from 1950 toward 1990 and found that anxiety increased significantly through this period. The authors conclude that cultural, historical changes produce parallel changes in personality. McCrae and Costa [26] recognized that a number of results suggest an environmental influence on traits: in women, the experience of divorce was related to decreased dominance and increased extraversion, while in Chinese undergraduates, openness and agreeableness increased when they lived in Canada.

## 8.3 Gender Differences in Characteristic Adaptations

Personality traits, although important, are not the only way to examine human personality. Personality traits are considered *basic tendencies* which determine recurring patterns of acting and feeling, but other concepts have also been used [27]. *Characteristic adaptations* are the particular forms in which people adapt to the environment. They are supposed to result from the interaction between basic tendencies and specific external influences (environment, situation, culture, etc.). While basic tendencies are assumed to be strongly determined by heredity, characteristic adaptations are culturally conditioned phenomena. Many personality psychologists have considered personality as the particular way in which the person adapts to the environment and have used concepts as *personal projects* [28], *personal strivings* [29], or *personal narratives* [30] to capture

relevant psychological differences. This level is related with processes, rather than structures. As it has been said, the focus here is on "doing," while structural models are based on "having." [31] In an influential paper, Dan Mc Adams asked readers a very deep question: What do you know when you know a person? [32]. Most of us would think that to say that we know somebody, we would need to know his/her interests, values, preferences, and motives; what would make this person happy or sad; what would be the type of behaviors that, as far as our comprehension goes, he/she would never do; and what others would be instead expected. Clearly, traits do not give us that information. Personality, at this level, is related to goals, plans, and particular ways to talk about ourselves.

Men and women have shown a different pattern to handle work and private life. Levinson [33] studied the kind of dreams that encourage males and females and found that men tend to place all their expectations in work, while the great majority of women give more importance to interpersonal relations. In general, women who had entered the labor market have not generated a change in competitive attitudes, nor they have considered professionalism as a focal aspect in their lives. Eagly and Johnson [34] proved that at the workplace, women often use a more democratic and participative style in decision-making than men, and some authors have found that even when the achievement levels of both were the same, men used to manifest an achievement style direct and competitive, while women had a relational style based on cooperation [35]. Since the seminal study by Helson et al. [36], two different pathways in life have been associated with men and women: the pursuit way, or the commitment to work for him, and the family/motherhood way for her. In this influential study, Helson found that for women from 22 to 27 years old, motherhood was associated with more responsibility, self-control, and tolerance and with decreases in self-confidence and sociability.

In a study carried out in South Africa, Rothman et al. [37] gave a series of measures related to well-being to a broad sample of different ages. Out of 22 variables, 10 threw significant differences, although of small amount, between men and women. Men scored higher in aspects related to physical aspects, cognitive, and self-concept, while women outperformed men in the expression of affect and spirituality. In general results showed that men show more self-acceptation, sensation of personal worth, and adequacy than women, who found meaning and purpose in their lives in a way centered around interpersonal relations and faith. Women showed more somatic symptoms than men, and no differences were found in the positive affect of both groups.

Croson and Gneezy [38] reviewed the experimental literature and found systematic differences between men and women in three types of preferences: risk taking, social preferences, and reaction to competition. Women were found to be more risk-averse than men, women's social preferences were more sensitive to subtle cues than men's, and their preferences for competitive situations were generally lower than men's. The above differences remain among children and in different cultures, supporting the authors' conclusion that the evidence provides support for nature over nurture explanations.

A very interesting paper reviews evidence of gender differences in responses to moral dilemmas. Friesdorf et al. [39] reported the results of a meta-analytic reanalysis of 40 studies with 6100 participants in which men and women were exposed to moral dilemmas. According to previous research, it was expected that women would react mainly with the *principle of deontology* (the morality of an action depends on its consistency with moral norms), while men would generally react according the principle of utilitarianism (the morality of an action depends on its consequences). Results indicated that men showed a stronger preference for utilitarian over deontological judgments than women when the two principles implied conflicting decisions. A further process dissociation analysis revealed that women exhibited stronger deontological inclinations than men, while men showed only slightly stronger utilitarian inclinations than women. Since there is the agreement that deontological judgments are shaped by affective processes whereas utilitarian judgments are guided by cognitive processes, gender differences in response to moral dilemmas seem to be due to differences in affective responses to harm rather than cognitive evaluations of outcomes. The authors correct James Joyce's words (men are governed by lines of intellect and women by curves of emotion): Both men and women are governed by lines of intellect and women, additionally, by curves of emotion.

In fact, women are ubiquitously stereotyped as more emotional than men. A recent meta-analytic study [9] showed that some gender stereotypes of emotion are accurate, while others are not. The stereotype that women experience more guilt, shame, and, to some extent, embarrassment was substantiated, but gender stereotypes about pride appear groundless.

What are the processes through which the male and female universe emerge? What are the developmental processes that lead to differences in behaviors, attitudes, motivation, and self-concept? According to C. Gilligan [40], men subordinate their interpersonal relations to work, since society drives them to be dominant and self-confident, to value their goals and success at work, and to control their emotions. Women, in turn, are prepared to assume caregiving tasks, to omit aggressive attitudes, and to favor dependency, since they are expected to be loving and obedient, and to take good care of their physical appearance.

In the last 30 years, however, society and the expectations associated with men and women have changed both in the public and in the private domain. Newton and Stewart [41] have analyzed similarities and differences concerning personalities of women at midlife who had taken nonnormative life courses. The results showed that women with high professional status versus those in more traditional female professions were characterized as more power oriented, rational, "objective," and proud of themselves, traits conventionally associated with masculinity. Nevertheless, these high status women were not lower than women with more traditional professions on conventional feminine-gendered characteristics, such as warmth in interpersonal relationships, care of others, and so on. Women without children were lower than women with children on traits conventionally associated with femininity, that is, they were less compassionate, were less protective of close people, and tended to be higher on conventional masculine traits such as keeping people at distance, to value

own independence, and to avoid close interpersonal relationships. Have their personality traits impelled women to take one or another pathway, or has been the pathway that has favored changes in these subtraits? Up to now, we are not able to answer this question.

In any case, at the level of characteristic adaptations, more gender differences are found than when basic dispositions are studied. These differences are not stable, since they would be affected by time, context, and working conditions.

## 8.4 Objective Biography and External Influences: The Role of Gender

From the above point of view, typical adaptations, in conjunction with the direct influence of the environment, shape our objective biography.

One of the fathers of personality psychology defined personality just as the person's biography [42], and indeed somebody's personality can be inferred from the person's life story. From a sociological point of view, it is clear that, besides our particular ways to adapt to private and working life, the external influences we receive from the environment differ greatly according to our gender. For example, within the same family the social roles of men and women determine different expectations about them that eventually might lead to differences in important life events. There is already ample evidence that certain developmental processes operate differently for men and women.

One experiment illustrates neatly the ways that girls and boys react according gender stereotypes. Hoffner [43] interviewed children aged 7–12 about their favorite TV character. Nearly all boys and about half of the girls selected same-sex favorites. Regression analyses used perceived character traits (attractiveness, strength, humor, intelligence, and social behavior) to predict wishful identification and social interaction with characters. For male characters, wishful identification was predicted by intelligence and (for girls only) humor; social interaction was predicted by intelligence, attractiveness, and (for boys only) strength. In marked contrast, for female characters (chosen only by girls), attractiveness was the only significant predictor.

Research on gender differences has expanded to reach technological domains. A new phenomenon among young adults relates to new technologies and ways of aggression, the cyberbullying. The results about the relationships between gender and this relatively new form of aggression are scarce. A recent study carried out in Hong Kong [44] with 208 undergraduate students found 2 motivational trends prompting students to perpetrate cyberbullying that were associated to gender differences. Mainly, having experienced victimization was a prompting element for boys to perpetrate aggressive behavior on the Internet significantly stronger than for woman, whereas it was the feeling of having less constraint to express oneself that the new technologies enable what impelled the cyberbullying behavior in the case of women students.

Much interest is focused on the way men and women present themselves on the Internet in relation with personality and social behavior. Dunn and Guadagno [45]

have found that teenage girls and adult women are more prone to reveal information about them or their family than boys and men. At the same time, girls and women present themselves more positively on socio-emotional characteristics than men. What is actually interesting is that although both groups used different strategies for self-presentation in the virtual world (e.g., creating a more attractive personality), men and women selected "characters" that differed from themselves in ways that correspond to social norms (i.e., thinner, warmth, and so on for women).

#### 8.5 Gender Differences in Self-Schemas

The particular way in which we see ourselves is in part determined by our history. We cannot see ourselves the same way if we fail or if we succeed. We learn what we are in part by observing what we do. But the self-concept is also determined by our basic tendencies and by the regular form in which we adapt to situations.

Research on self-schemas has found that there are two basic types in self-schemas: an independent, separate-from-others construction and an interdependent, connected-to-others structure [46]. Self-schemas are important: they determine how we process information, the way we make comparison against others, the information we remember, and how we compensate when there is threat. According to several results, men are more inclined to have an independent self-schema, while women usually show a connected type of self ("individuality" versus "sociality") [47]. A study by Guimond and his coworkers [48] about the processes by which self-stereotyping is construed found that women are higher in interdependence self-construal, whereas men are higher on independence. It should also be considered the way in which people incorporate in their self-concept gender aspects that family and society shape. Hazel Markus' pioneering studies have shown that individuals differ markedly in the nature of their knowledge structures about gender and in how gender is integrated into the self-concept.

Joseph and others [49] nicely illustrated how gender norms influence the way we establish our self-esteem. For men, thinking of themselves as independent and unique was associated with high self-esteem, while for women self-esteem was linked to thinking of the self as connected. Block and Robins [50] found that from ages 14 to 23, self-esteem (concordance between the real and the ideal self) increases in boys and decreases in women. Throughout that time, men became more self-confident, but women lost confidence in themselves. Women with high self-esteem valued close relationships with others; high self-esteem men were more controlled and emotionally distant in their relationships with others. The authors conclude that these differences in relationships reflect the very different expectations society holds for what it means to be a man or a woman. People whose personalities fit the cultural expectations are more likely to feel good about themselves and to have a self-concept close to their ideal self.

Differences in self-esteem, however, are not stable. One meta-analysis by Kling et al. [51] showed that self-esteem grew larger for boys but not for girls from child-hood to adolescence and high school, but the size of this difference was smaller in adult and old age.

The literature on gender differences in autobiographical memory, on the other hand, (the recollection of personal events) is consistent. Women construct autobiographical narratives in a more detailed, longer, emotional, and coherent form than men, a difference that can be traced back to the way parents talk with their children [52]. Very early in the development, the parents teach their children which events are reportable and how to tell them, and these lessons are contoured by culture and gender. Particularly, the findings have signaled that talk about emotional events is a gender-typed activity. Mothers talk more about emotions with her daughters than with her sons.

Parents can also encourage their children to play music, to tell or read stories, and to play "as if" and other activities related to fantasy that, in the course of development, make fantasy-prone individuals [53]. Several studies showed that women [54] and adolescent girls [55] are higher fantasizers than men and boys.

## 8.6 Character Strengths of Men and Women

In the last decades, Positive Psychology, a school of thought that has become very popular, advocates that we should devote more time and effort to study the positive, adaptive parts in our lives [56]. Although not centered properly in personality aspects, the Positive Psychology movement has offered an alternative way to look at human behavior and has proposed 24 "Character strengths" that make good life possible and provide a new, healthy way to assess people. Thus, strengths of creativity, curiosity, open-mindedness, love of learning, and ability to have a perspective in life (related to the virtue of wisdom and knowledge); love, kindness, and social intelligence (which belong to the virtue of humanity); forgiveness, humility, prudence, and self-regulation (included in the broader virtue of temperance); bravery, persistence, integrity, and vitality (virtue of courage); citizenship, fairness, and leadership (belonging to the virtue of justice); and appreciation of beauty and excellence, gratitude, hope, humor, and spirituality (considered part of transcendence) have become significant areas to examine the psychological universe of people.

Are there gender differences in strengths? From the many studies conducted, only a few show systematic differences between men and women. There is a well-documented advantage of women over men on scales of *emotional intelligence*: they score between one quarter and one half standard deviation above men, a moderate sized group difference [57]. In citizenship or social responsibility, females are more likely than males to exhibit *altruism and empathy* and to feel guilty when they do not attend the needs of others, and they are also more likely to engage in voluntary services in their community [58]. A number of studies suggest more *modest self-presentation* in women than in men [59]. Although a small difference, self-esteem tends to be lower in women and narcissism higher in men [60]. As for transcendent strengths, women score higher in connectedness, transportation, and elevation [61]. In the strength of *spirituality*, ubiquitous in empirical research is that women *are more religious* than men, although that may reflect social and cultural rules. According to the results by Kashdan and others [62], men are less likely to

feel and express gratitude, make more critical evaluations of gratitude, and derive fewer benefits from it. Gender differences in *humor* have been reported, in which men are more likely than women to joke, tease, and kid, but the differences could be ascribed to role differences in accepted standards of behavior and status. Lindley et al. [63] presented data on the character strengths of a large UK sample and found that women typically scored higher on strengths than did men. However, four of the top five "signature strengths" of the UK men and women overall were the same (open-mindedness, fairness, curiosity, and love of learning).

Biswas-Diener [64] evaluated character strengths across cultures. Kenyan Maasai, Inughuit in Northern Greenland, and University of Illinois students filled out the Values in Action Classification (VIA) to assess strengths of character. Results showed strong similarities among cultures but also gender differences between and within them. Brdar et al. [65] in a sample of 800 Croatian subjects found that women and men differed significantly in 10 character strengths. The five highest-weighted for women were integrity, kindness, love, gratitude, and fairness, while the highest for men were integrity, hope, humor, gratitude, and curiosity. In the adaptation of the VIA Inventory of Strengths in Israel, Littman-Ovadia and Lavy [66] worked with a sample of 635 Israeli adults and found that women scored higher than men in love, appreciation of beauty, and gratitude, while men were higher in curiosity. Once again, we observe that those gender differences (1) are congruent with gender stereotypes and (2) are of small amount. Shimai and others [67] investigated gender and cultural differences on the distribution of character strengths in Japan and North America and found that female were more likely than male to report strengths of love and kindness, whereas male were more likely to report bravery and creativity.

#### 8.7 Conclusions

In the 1970s Maccoby and Jacklin [68], in a most cited study, reviewed studies of gender differences using qualitative methods. Their conclusion was that there were many popular beliefs about differences that were unfounded, since gender-related differences were generally small. Political and scientific elements intervene in comparing men and women. In the first approaches to gender differences at the 1970s, scholars were skeptical about differences, gender stereotypes were challenged, and sameness was promoted [69]. During the 1980s and 1990s, evidence about differences was gathered, especially concerning personality and social behavior. A more recent study by Hyde [23] proposes again the similarity between genders. Men and women are more alike than different.

At the trait level, psychological differences have been found between men and women that are similar in different cultures and times and that appeared with different measurement methods [70]. Those differences, however, are of small amount, smaller than individual variation within genders. Greater contrast is found at the level of characteristic adaptations, where remarkable differences appeared in the way that men and women manage both their private life and their work. Perhaps

because of that the objective biography would generally include distinct life events for both. As a consequence, the structure of the self becomes also different. Among the many character strengths proposed, only a few showed gender differences, and those are favorable to women.

The strikingly similar men/women differences in personality traits over cultures have allowed researchers to propose biological explanations of them. In contrast, trait differences could also be thought as the sediment of a series of specific differences culture-and-society based that have come to stabilize through time, social impact, and behavior itself. In both cases, stable trait differences are expected, but the explanations of them would differ. The exact nature of gender differences and the roles of the evolutionary hardwiring versus social structure in bringing them about remain to be defined. But in the meantime, we should be aware that too much stress on differences can be costly for individuals and society. Dorothy Parker wrote:

"Man delights in novelty. Love is woman's moon and sun; Man has other forms of fun. Woman lives but in her lord; Count to ten, and man is bored. With this the gist and sum of it, What earthly good can come of it?"

Despite (small) real differences, we can communicate with each other.

#### References

- Nettle D. Personality. What makes you the way you are. New York: Oxford University Press; 2007.
- Goldberg LR. Language and individual differences: the search for universals in personality lexicons. In: Wheeler L, editor. Review of personality and social psychology. Beverly Hills, CA: Sage; 1981. p. 141–65.
- 3. Costa P, McCrae R. NEO-PI- R: professional manual. Odessa, FL: Psychological Assessment Resources: 1992.
- 4. McCrae RR, Terracciano A, and 78 members of the project "Personality Profiles of Cultures", among them Avia, MD and Sánchez Bernardos, M. L. Universal features of personality traits from the observer's perspective. Data from fifty cultures. J Pers Soc Psychol 2005;88:547–561.
- Vianello M, Schabel K, Sriram N, Noreck B. Gender differences in implicit and explicit personality traits. Pers Individ Dif. 2013;55:994

  –9.
- 6. Schmitt DP, Realo A, Voracek M, Alik J. Why can't a man be like a woman? Sex differences in Big Five personality traits across 55 cultures. J Pers Soc Psychol. 2008;94:168–82.
- Benet-Martínez V, John OP. Los cinco Grandes across cultures and ethnic groups: multitrait-multimethod analysis of the Big Five in Spanish and English. J Pers Soc Psychol. 1998;75:729–50.
- 8. Weisberg Y, De Young CG, Hirsh JB. Gender differences in personality across the ten aspects of the big five. Front Psychol. 2011;2:178. https://doi.org/10.3389/fpsyg.2011.00178.
- Else-Quest NM, Higgins A, Allison C, Morton LC. Gender differences in self-conscious emotional experience: a meta-analysis. Psychol Bull. 2012;138:947–81.
- DeShong H, Tucker RP, O'Keefe VM, Mullins-Swett SN, Wingte LR. Five factor model traits as a predictor of suicide ideation and interpersonal suicide risk in a college sample. Psychiatry Res. 2015;226:217–23. https://doi.org/10.1016/j.psychres.2015.01.002.
- Yarnell LM, Stafford RE, Neff KD, Rilly ED, Knox MC, Mullarkey M. Meta-analysis of gender differences in self-compassion. Self Identity. 2015;5:499–520.

- 12. Feingold A. Gender differences in personality: a meta-analysis. Psychol Bull. 1994;116:429-56.
- 13. Carrillo J, Rojo N, Sánchez-Bernardos ML, Avia MD. Openness to experience and depression. Eur J Psychol Assess. 2001;17:130–6.
- Carrillo J, Rojo N, Staats W. Women and vulnerability to depression: some personality and clinical factors. Span J Psychol. 2004;7:29–39.
- Goffman E. The presentation of self in everyday life. Anchor Books. Garden City, NY: Doubleday; 1959.
- 16. Snyder M. Public appearances, private realities. New York: Freeman; 1986.
- 17. Snyder M. Self-monitoring processes. In: Berkowitz L, editor. Advances in experimental social psychology, vol. 13. New York: Academic; 1980.
- 18. Rojo N, Carrillo J. La presentación de uno mismo a los demás: ¿habilidad o defensa? (The presentation of self to others: skill or defense?). In: Avia MD, Sánchez-Bernardos ML, editors. Personalidad: aspectos cognitivos y sociales (Personality. Cognitive and social aspects). Madrid: Pirámide; 1995. p. 413–25.
- 19. Sanz J, Graña JL. Factores psicosociales y síntomas depresivos: el caso de la auto-observación (Psychosocial factors and depressive symptoms: the case of self-monitoring). Psicothema. 1991;3:381–99.
- Snyder M, Simpson JA, Gangestad S. Choosing friends as activity partners: the role of selfmonitoring. J Pers Soc Psychol. 1983;51:181–90.
- Snyder M, Simpson JA, Gangestad S. Personality and sexual relations. J Pers Soc Psychol. 1986;51:181–90.
- 22. Avia MD, Carrillo J, Rojo N. Personalidad y diferencias sexuales: el papel del sexo, la edad y la experiencia (Personality and sexual differences: the role of sex, age and experience). Revista de Psicología Social. 1990;5:7–22.
- 23. Hyde JS. The gender similarities hypothesis. Am Psychol. 2005;66:581–92.
- 24. Pervin LA, Cervone D, John OP. Personality. Theory and research. New York: Wiley; 2005.
- 25. Twenge J. Birth cohort, social change and personality: the interplay of dysphoria and individualism in the 20th century. In: Cervone D, Mischel W, editors. Advances in personality science. New York: Guilford; 2002.
- McCrae R, Costa P. The five-factor theory of personality. In: John OP, Robins RW, Pervin LA, editors. Handbook of personality: theory and research. New York: Guilford; 2010.
- 27. McCrae R, Costa P. Toward a new generation of personality theories: theoretical contexts for the Five-Factor Model. In: Wiggins JS, editor. The Five-Factor Model of personality: theoretical perspectives. New York: Guilford; 1996.
- Little BR, Salmela-Aro R, Phillips S. Personal projects pursuit: goals, acting and human flourishing. New York: Psychology Press; 2006.
- 29. Emmons RA. Personal strivings, daily life events and psychological and physical well-being. J Pers. 1991;59:453–73.
- 30. Mc Adams DP. Personal narratives and the life story. In: Pervin LA, John OP, editors. Handbook of personality. Theory and research. New York: Guilford; 1999. p. 478–500.
- 31. Cantor N. From thought to behaviour: "having" and "doing" in the study of personality and cognition. Am Psychol. 1990;45:735–50.
- 32. Mc Adams DP. What do you know when you know a person? J Pers. 1995;63:365-96.
- 33. Levinson DJ. A conception of adult development. Am Psychol. 1986;41:3–13.
- Eagly AH, Johnson BT. Gender and leadership style: a meta-analysis. Psychol Bull. 1990;108:233–56.
- 35. Barberá E, Lafuente MJ. Procesos de sexuación e implicaciones de género en la etapa adulta (Sexuation processes and gender implications in adulthood). In: Fernández J, editor. Varones y mujeres. Desarrollo de la doble identidad del sexo y del género (Men and women: development of dual identity of sex and gender). Madrid: Pirámide; 1996.
- Helson R, Mitchell V, Moane G. Personality and patterns of adherence and nonadherence to the Social Clock. J Pers Soc Psychol. 1984;46:1079–96.
- Rothman B, Kirsten DK, Wissinsg MP. Gender differences in aspects of psychological wellbeing. South African J Psychol. 2003;33:1079

  –96.

- 38. Croson R, Gneezy U. Gender differences in preferences. J Econ Lit. 2009;47:448–74.
- 39. Friesdorf R, Conway P, Gawronski I. Gender differences in responses to moral dilemmas: a process dissociation analysis. Pers Soc Psychol Bull. 2015;41:696–713.
- 40. Gilligan C. In a different voice: psychological theory and women's development. Cambridge: Harvard University Press; 1982.
- 41. Newton NJ, Stewart AJ. The road not taken: women's life paths and gender-linked personality traits. J Res Pers. 2013;47:306–16.
- 42. Murray HA. Explorations in personality. New York: Oxford University Press; 1938.
- 43. Hoffner C. Children's wishful identification and parasocial interaction with favorite television characters. J Broadcast Electron Media. 1996;40:389–402.
- 44. Wong R, Cheung C, Xiao B. Does gender mater in cyberbullying? An empirical investigation. Comput Human Behav. 2018;79:247–57.
- 45. Dunn RA, Guadagno RE. My avatar and me: gender and personality predictors of avatar-self-discrepancy. Comput Human Behav. 2012;28:97–106.
- Markus H, Kitayama S. Culture and the self: implications for cognition, emotion and motivation. Psychol Rev. 1991;98:224–53.
- 47. Lang-Takac E, Osterweil Z. Separateness and connectedness: differences between the genders. Sex Roles. 1992;27:277–89.
- 48. Guimond S, Chatard A, Martinot D, Crisp RJ, Redersdorff S. Social comparison, self-stereotyping and gender differences in self-construals. J Pers Soc Psychol. 2006;90:221–42.
- 49. Joseph RA, Markus H, Tafarodi RW. Gender and self-esteem. J Pers Soc Psychol. 1992;63:391–402.
- 50. Block J, Robins RW. A longitudinal study of consistency and change in self- esteem from early adolescence to early adulthood. Child Dev. 1993;64:909–23.
- 51. Kling KC, Hyde JS, Showers CJ, Buswell BN. Gender differences in self-esteem: a meta-analysis. Psychol Bull. 1999;125:470–500.
- 52. Nelson K, Fivush R. The emergence of autobiographical memory. A social cultural development theory. Psychol Rev. 2004;111:486–511.
- 53. Sánchez-Bernardos ML, Avia MD. Fantasy. In: Levesque JR, editor. Encyclopaedia of adolescence, vol. 2. New York: Springer; 2011. p. 984–9.
- 54. Merckelbach H, Horselenberg R, Muris P. The Creative Experience Questionnaire (CEQ): a brief self-report measure of fantasy proneness. Pers Individ Dif. 2001;31:987–95.
- Sánchez-Bernardos ML, Avia MD. Personality correlates of fantasy proneness among adolescents. Pers Individ Dif. 2004;37:1069–79.
- 56. Seligman MP. The president's address. Am Psychol. 1999;54:559–62.
- 57. Mayer JD, Salovey P, Caruso DR. Models of emotional intelligence. In: Sternberg JR, editor. Handbook of intelligence. Cambridge: Cambridge University Press; 2000. p. 396–420.
- Flanagan C. Citizenship. In: Peterson C, Seligman MP, editors. Character strengths and virtues. Washington, DC and New York: APA and Oxford University Press; 2004. p. 369–89.
- 59. Exline JJ, Lobel C. The perils of outperformance: sensitivity about being the target of a threatening upward comparison. Psychol Bull. 1999;125:307–37.
- Kachorek L, Exline J, Campbell W, Baumeister R, Joiner T, Krueger MJ. Humility and modesty. In: Peterson C, Seligman MP, editors. Character strengths and virtues. Washington, DC and New York: APA and Oxford University Press; 2004. p. 461–75.
- 61. Haidt J, Keltner D. Appreciation of beauty and excellence. In: Peterson C, Seligman MP, editors. Character strengths and virtues. Washington, DC and New York: APA and Oxford University Press; 2004. p. 537–51.
- 62. Kashdan TB, Mishra A, Breen W, Froh J. Gender differences in gratitude: examining appraisals, narratives, the willingness to express emotions and changes in psychological needs. J Pers. 2009;77:691–730.
- 63. Lindley P, Maltby J, Wood AM, Harrington J, Peterson C, Park N, Seligman MP. Character strengths in the United Kingdom: the VIA Inventory of strengths. Pers Individ Dif. 2007;43:341–51.

- 64. Biswas-Diener R. From the equator to the north pole: a study of character strengths. J Happiness Stud. 2006;7:293–310.
- 65. Brdar I, Anic P, Rijarec M. Character strengths and well-being: are there gender differences? In: Brdar I, editor. In the human pursuit of well-being. Dordrecht: Springer; 2011. p. 145–6.
- Littman-Ovadia HY, Lavy S. Character strengths in Israel: Hebrew adaption of the VIA Inventory of strengths. Eur J Psychol Assess. 2012;28:41–50.
- 67. Shimai S, Otare K, Park N, Peterson C, Seligman MP. Convergence of character strengths in American and Japanese young adults. J Happiness Stud. 2006;7:311–22.
- 68. Maccoby EE, Jacklin CN. The psychology of sex differences. Stanford, CA: Stanford University Press; 1974.
- 69. Eagly AH. The science and politics of comparing women and men. Am Psychol. 1995;50:145–58.
- 70. Costa P, Terracciano A, McCrae R. Gender differences in personality traits across cultures: robust and surprising findings. J Pers Soc Psychol. 2001;81:322–31.

# **Self-Identity and Gender Differences**

9

Miguel Angel González-Torres and Aranzazu Fernandez-Rivas

#### **Abstract**

After reviewing the origins of the concepts of identity and self, departing from historical psychoanalytic proposals, a special focus is pointed to the complex process of identity construction in both genders, including core gender identity and gender role identity. Different ways of approaching sexual orientation and sexual behaviour are examined, introducing the concept of sexual fluidity and studying the importance of individual variations in those dimensions. The role of the others in the process of identity building is analysed, from the impact of others' sexuality to the influence of large group processes. Depositation phenomena and mechanisms of transgenerational transmission are debated. In the social context, special attention is paid to the imbrication of violence and sexuality, showing differences between men and women around that combination throughout history. Finally, a point is made regarding how social considerations on the respective value of men and women may have very real and deleterious impact, much beyond feelings or worthlessness or superiority.

#### 9.1 Introduction

Identity is a concept that in its own way eludes us. Intuitively, we know what it is, but it is not easy to define, and it has nuances that are overwhelming to those who venture into its depths. Its richness covers the fields of Psychology, Biology, Sexuality, History, Sociology and—why not?—Economics and Politics. Without

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question, if we're talking about identities that are anomalous, Psychiatry should arrive on the scene in order to provide comprehension and meaning. To attempt to deepen all of these fields would surpass the limits of a text such as this one, which is why one certain selection would be necessary. In order to provide the reader with some orientation, we should say that we're planning to emphasise some particular aspects of the self-identity as it relates to gender, from a perspective that gives precedence to a psychological point of view, and specifically one in which psychoanalytic theory serves as a guide, not unique but certainly preferential.

There are not many references in Freudian writings relating to the concept of identity. It was Erikson [1] who established the key aspects of the concept, which we still consider relevant. Erik Erikson described identity as a global synthesis of functions of the self on one hand and on the other hand the consolidation of a sense of solidarity with the ideals of a group and group identity. He thus indicated that identity also implied the rejection of a series of unacceptable roles, in a manner in which this constructive process could have affirmative (this is how I am) and negative aspects (this isn't how I am) discerned from it.

Otto Kernberg [2] developed this vision of identity, broadening it, observing that the definition of the ego identity formulated originally by Erikson included the integration of the concept of self. For Kernberg, an approach from the theory of object relations extends this definition by adding the corresponding integration of the concepts of significant others. Westen [3, 4] had previously revised empirical and theoretical literature regarding identity and self, signalling the primary components of identity: a sense of continuity in time, an emotional commitment with a set of representations of the self that have been self-defined, relationships consisting of nuclear roles and values and ideal standards of the self and the development and acceptance of a weltanschauung that grants significance to life and a sort of acknowledgement from the significant others regarding our place in this world.

Identity is found continually under construction, and in this large process, the people with whom we establish relationships (the others) play a key part. In his famous concept of the "mirror stage", Lacan [5] describes the so-called imaginary dimension in the creation of the I. This is a period of child development in which the child sees himself through the eyes of his mother, and upon seeing this image, he builds his identity. In this complex process, the desires of the mother and the others are introduced, such as the need to reconcile our identity with those that others assign to us. To that end, we feel obligated to hide aspects about ourselves that may be fundamental, generating an identity and a presence that is always partial and at the same time a continuous longing to recover what we had felt obliged to hide. The pressure towards conformity, towards a more-or-less subtle accommodation of the far-removed desire, is in the deepest parts of our nature. Because of that, in a certain way, within each personal identity, we can find traces of the society to which that individual belongs, traces that indicate the pressures taken in so that the subject, in development, should occupy the space for growth available and nothing more. In this sense, Fromm [6] assures us that the development implies "mystification", a process that provides us with a costume in which we can present ourselves and with which we can relate with others.

Identity has made up a topic that is very current in psychoanalytic publications, even having full issues dedicated to this topic [e.g. 7]. Undoubtedly, this multiplicity in attention, in a world as heterogeneous as that of psychoanalysis, challenges us with definitions that are very different with regard to the concept of identity, which are sometimes difficult or impossible to integrate. The idea of identity that we deal with below, in this text, reflects a mode of thought regarding this term, which is characteristic of current psychoanalytic authors belonging to various theoretical schools, from the North American Ego Psychology, in the most contemporary version, up to the theory of object relations or relational or intersubjective lines of thought.

In order to clarify our position further, we will say that we consider identity to be an internal representation of our global person, which incorporates a significant temporal aspect: a vision of the past, which explains whence we came, including a social and familial narrative, a vision of the present which includes our place in the world and a vision of the future that includes our ideals and desires for tomorrow.

## 9.2 Concept of Self

When reviewing psychoanalytic literature regarding the self, we reach a level of confusion about the term. Different authors utilise the same terms in order to indicate different realities. The concept of "I" overlaps with that of the self, or with that of the "ego", or even with that of the person. The peculiar translation of Strachey doesn't help in this process, which took the German "Ich", seemingly under pressure from Ernest Jones, and instead of changing it to the English "I", as in other languages, ended up being transformed into the peculiar "ego", which has had so much success in Anglo-Saxon psychoanalytic literature and even in international popular literature. Even Freud utilises the term "ego" (Ich) in two ways: to refer to a part of the psychic apparatus in his structural theory of the mind and also in order to indicate the entire person or self. This equivalence between the person and the self continues to this day, from authors such as Meissner [8], a true exegete of the work of Freud, reaching levels of analysis of extreme complexity.

Meissner [8] points out some fundamental characteristics of the self, especially in its role as generator of structure.

- The self is equal to the person and, therefore, is a source of agency.
- The self includes the three components (id, ego, superego) as substructures.
- The self includes experiential and non-experiential dimensions.
- The self as agent is the source of all the actions of a person.
- The agency of the self is shared by the id, the ego and the superego.
- The relation of the self with the tripartite model is supraordinated.
- The intrasystemic and intersystemic conflicts reflect patterns in the diversification and interaction of the functions of the self.
- The concept of the self as a structure contrasts with that of the self as representation.

 The internationalisations are primarily modifications of the system of the self and may be ascribed secondarily to substructures or representations.

We can see that the concept of self varies according to schools of thought and authors. We can observe two fundamental manners by which to conceive of the self. One is as a substructure, considering the self as being equivalent to the I, or, rather, taking the self as a structure of a greater entity that contains within itself all of the parts of the psychic apparatus. In this sense, the concept of the self runs parallel to that of the I in the work of Freud, which alternated between the two usages described. On the other hand, there is a different usage, which we can consider to be greater today. This would be the use of the self as representation, equivalent to the global person, especially in the context of object relations. This is the more standard usage in contemporary psychoanalytic literature. Applebaum [9] considers the structure to be composed of "stable configurations of the self and the object", developing thus the classic formulations of Kernberg [10].

In summation, we should say that in this text, we consider the self to be equivalent to the global person, following the extensive use of the concept indicated in the work of Meissner [8] as well as many other authors. To that end, the idea of the identity of the self (self-identity), in our case, reflects the very conception of our person in the most global sense, including one's generic identity with all of the subtleties that we describe below.

We should also indicate that the confluence of the concepts of self-identity and gender lead us to different analyses. One is the examination of the process of acquisition of gender identity and of gender role identity. The other is a reflection regarding the different factors that affect the construction of self-identity in men and women. We will touch upon the first topic and will concentrate more on the second, which to our understanding has not been sufficiently dealt with in the literature and is of great interest.

## 9.3 Gender Identity and Gender Role Identity

What are we talking about, in natural terms, when we refer to gender identity?

- 1. What I am. This is the result of what my biological body affirms and the response that society provides in the face of it. It is important to highlight this aspect: contemporary research indicates that feedback from parents is vital for this initial identity construction relating to gender to take place. The body alone is not sufficient. To paraphrase Freud, we should say that Anatomy is, normally, destiny.
- 2. How I feel. Independently of the body, I can feel like a woman or a man or perhaps something intermediate between the two. Certainly, 1 and 2 tend to coincide, but that is not obligatory.
- 3. How I act. I represent a social role in front of the others, which includes a multitude of subtleties relating to attire, language, movement and interaction.

- 4. Whom I desire. Men and women exclusively, or fluently, one or the other, according to the moment...
- 5. Whom I select as a life partner. This can be a choice in line with the above or not.

Within this conceptual variety, two elements occupy a preferential position [11]. They are core gender identity, based on biological and constitutional aspects, and gender role identity, built on a foundation of social and collective provisions. We direct our reflections here towards those points particularly.

The concept of bisexuality in Freud occupies a very central position in his thought regarding human sexual development. The social and academic attitude towards this proposal has gone back and forth throughout the years. Many times it has even been vehemently rejected. Nowadays it has been accepted once again, in line with the increased attention currently paid to the very early relationship with parental figures, especially with the mother. The processes of identification and fusion with the mother are today considered key to generic identity formation, which for Stoller [12, 13] is firmly established before the age of 2, before any type of Oedipal eventuality. Authors such as Benjamin [14] draw attention to the limitations of the classic Freudian theory on the subject and propose a more integrated vision of the processes that constitute gender. For this author, the boy and girl want what they don't have, in addition to what they have, not instead of what they have. Logically, from this point of reflection, the classic lines of thinking regarding "fault", "injury", "envy" or even "castration" acquire different nuances.

Some people, including some researchers, live uncomfortable with this complex reality and even reject it. It is certain that a good part of the population, possibly the majority of the population, displays a consistency between inner life, social role, desire and partner choice, but undoubtedly there is another group, perhaps bigger than we believe, that does not line up with this generality. For a while now homosexual men and women have also become a field of study, and every day we know more about their lives and their internal world as well as their relationships. However, we still know little about those who don't fall under that narrow definition of homosexuality. Those who show orientation or identities that are more complex tend to be considered outliers in the world of science and academia, set apart from normal studies. The result is a general loss: a loss, perhaps, for these people, who could see themselves more integrated into the social norms in which they live, and without question a loss for us, since the study of different lives can enormously enrich our comprehension of key phenomena such as identity, sexuality and gender.

Without question, the study of "different" sexualities and their construction is perceived as a danger within society in general. Sexuality, understood in the more broad sense of Stoller [15] as that which has to do with gender identity and desire, is a fundamental pillar of individual and collective identity. To establish other possible sexual identities would provoke a furious reaction in some and a more discreet rejection from almost everyone else. There is something intimate that breaks when we are faced with things that might be different, that we might desire other people or feel differently. It seems as though the acquisition of this generic identity,

especially masculine identity, were a laborious and fragile process that we should take care of and protect. The conduct of these extreme minorities that go from rejection to frank aggression to those who are different shows a major trace of tendencies and movements that affect society as a whole. Some set their attention on the social-political background of the gender roles, and the unequal distribution of power that they entail, considering social forces, expressed through certain individual attitudes, as the ultimate cause of the anxiety that is felt in the face of the possibility of there being differences. In our opinion, the anxiety has a deeper origin.

Damasio [16] describes the so-called extended self, which originates in the autobiographical conscience and thus comes from that identity continuity through time: I am who I was yesterday and who I was before then. We should say that gender identity and the disposition of our desire constitute aspects that are absolutely nuclear within this extended self. When the final certainties relating to gender are called into question, panic comes to the fore.

The situation regarding sexuality in contemporary psychoanalytic theory deserves reflection, even if it is brief. We should say that the central position that sexuality occupied within Psychoanalysis in its origins has changed greatly. Amazingly, in spite of the growing attention that biological matters awaken in many neighbouring disciplines such as cognitive theory, Psychoanalysis has moved away from what were its first signs of identity. The relational perspective, already present in the works of Erikson [17] and more intensely in the contributions of Klein [18] and his followers and still today more so in the relational theories of Mitchell [19], has in a way desexualised, the sexual encounter to the point of considering it as a simple variety of how humans connect with each other. Nonetheless, as Fonagy indicates in a review [20], the reality around us, which shows us the constant presence of sexual inhibitions and lack of satisfaction, conflicts and perversions, the tremendous intensity of guilt, jealousy and rage that are involved in sexuality, still reminds us the central role of sexual function. Possibly Kernberg [21], with his more integrated model that assigns a greater role to drives, is one of few contemporary theorists, together with Laplanche [22], who continue to consider sexuality as central in the internal world and human behaviour.

Nancy Chodorow [23] warns us of the necessity of valuing sexuality in an individual manner and of avoiding empty generalisations. She criticises overgeneralisation, universalism and essentialism and advocates for a consideration of the individual route, which each subject goes through, and of the thousand different ways of creating global and gender identity. She indicates to us, referring to the woman:

"It is apparent that gender, like selfhood, must be individually unique...There are many psychologies of women. Each woman creates her own psychological gender through emotionally and conflictually charged unconscious fantasies that help construct her inner world, that projectively imbue cultural conceptions, and that interpret her sexual anatomy. By making some unconscious fantasies and interpretations more salient than others, each woman creates her own prevalent animation of gender". It is difficult to synthesise the description of such a complex process any better. We can possibly extend this reflection to the man as well.

We frequently talk about gender identity or about sexual orientation as if we were talking about traces that, once fully formed at the end of adolescence, remained immovable forever. Recent works such as that of Lisa Diamond [24] put the concept of sexual fluency on the table. They use this term to refer to a characteristic pertaining to an unknown, but significant, number of women, who feel attraction towards different genders at different points in their lives, without identifying completely with one stable gender role. Diamond points to some facts demanding explanation: changes in sexual identity throughout time; the sensation that identity and orientation do not presuppose anything definitive with regard to the future; the fact that for a group of women, non-exclusive attractions are more often the norm than the exception; and the diminished importance of early experiences with regard to predicting future identity and orientation. This sexual fluency seems to affect women more than men. These might keep themselves more rigidly glued to their identity and choice of sexual object starting in adolescence. Nonetheless, as the author indicates, these groups of the population have not been sufficiently studied and have been considered anomalies, outliers, which distorted the vision of the whole. A specific study could lead us to reconsider this matter in the case of men as well.

# 9.4 Construction of Identity

The construction of a global identity within which gender identity occupies an important place deserves specific attention. Do men and women develop a different constructive process? Boys and girls depart from a psychobiological structure, which develops later within a familial and social context. The possible differences between men and women within this process have been explored insufficiently, but it seems clear that, given the existing differences relating to genetics, biology, psychology, experience, social relations, etc., there could be differences worth mentioning. The identity structure of an individual is always complex, made up of multiple layers, the product of successive significant interpersonal links throughout time.

Freud laid out a famous dictum, "Anatomy is destiny", signalling the fundamental importance of all things biological at the hour of defining the identity of the individual, in general, and especially in the sexual realm. The structure of our body was for him the frame of identity, the scaffold upon which the perception that the individual has of himself and his place in the world would be construed. Throughout the years, different authors, inside and outside psychoanalysis, have called into question Freud's dictum, ascribing more value to all that is acquired throughout one's experiences, be they in the confines of the family or in society in general.

Possibly, the concept of identity and representation of the self are accepted as equivalent in the contemporary psychoanalytic world. Authors today often link this representation of the self with representations of the object, thus forming pairs of representations that are internalised and which would form the basis of that global identity. In this line, personal identity includes a vision of the object in relation to the self, and not just of the self alone. In other words, the internal presence of the

other is a fundamental element in our identity: those whom we know form a part of our own selves. Taking gender into account, we could consider that within the inner structure of each person is a representation of the other sex, and thus in some manner, the other sex forms part of the basic building blocks of our personality and of our global being. We have come close to the most-complex manner that individuals employ to construct their gender identity, their gender role and, finally, their desires. Obviously, each one of these aspects should play a relevant role in the construction of our self, of our global persona and, with that, of our identity in the broadest sense of the word. The man contains the woman, and the woman contains the man.

If we approach this from a vision of the self as the result of the incorporation to the internal world of internalised representations of object relations, it is clear that the image that we maintain of ourselves and that which others give back to us come to form part of this identity. There is no self without object; there is no representation of the self without representation of the other. How I feel leads to how I act, and this second part produces a reaction within the environment that simultaneously conditions the response of the former. There is a fluctuation of experiences and reactions that generate identity. As with the mother, in the period that Lacan calls the "mirror stage", who gives the child the image that he seeks, the others are mirrors in front of which we pose. In them we seek something with which to build the representation of our self, which is to say our own identity.

It could be that this "other" of the opposite gender that each one of us has within has to do with the intense effect men and women have over each other with their mere presence. Popular wisdom is aware of this powerful force. When asked if she saw a possible relationship between religious people of different gender, Saint Teresa of Ávila affirmed: "between a saintly man and saintly woman...; a bolted and barred-up wall". Phryne before the Areopagus, the mermaids charming sailors with their songs and the horrific stare of Medusa are but examples that demonstrate this influence, well known from the dawn of time.

Coming back to psychoanalytic literature, we see that Freud warns Jung in a letter: "The way these women manage to charm us with every conceivable psychic perfection until they have attained their purpose is one of nature's great spectacles" (quoted in 20). In this ambivalent line that Freud was expressing to his favourite disciple, prior to their definitive break, we see that the Viennese genius acknowledges the difficulty that comes with seeing oneself liberated from the influence of the other sex, since only trained and vigilant clinicians could isolate themselves from that influence.

If we consider the construction of identity as construction of the self, we should pay logical attention to Kohut in particular, founder of the Self Psychology School [25]. Kohut indicates how the construction of the identity, parallel to the development of narcissism, implies the relationship with three types of objects that cover different necessities. He would call those objects "self-objects". The self-object of idealisation would be that which allows the child in development to cast an admiring stare towards a powerful and capable person. The mirroring self-object would be that which gives the child back a valuable image of himself. Lastly, the twin object would correspond to a peer, an equal with which the relation would be built

based on symmetry. The connection with objects of these characteristics allows the subject's self to develop soundly, reaching the necessary intensity with regard to his ambitions, ideals and goals. It is interesting that Kohut does not pay much attention to the differences between men and women in this journey. It is possible that in setting aside Freudian structural theory and, in so doing, taking away the importance of the drives, he downplayed the study of sexuality. Consequently, gender and desire do not represent for him an area of special interest. Characters in Kohut's theoretical narrative seem strangely asexual.

Spitz [26] describes a series of stages that are essential in the development of the human infant which he calls "organisers" and which have steps that are indispensable for understanding the development of the child's identity. The first is the social smile, which presupposes the acknowledgement of oneself as a member of the human species. The child does not smile at objects or at animals, only at humans, and thus, to smile is to belong to the human race, to be a part of us. It happens at the second or third month. The second organiser of Spitz is anxiety in the face of strangers, which allows for fundamentally connected figures to be differentiated (those who do not cause anxiety) from the rest (those who cause anxiety). This occurs at 8 months. Lastly, the third organiser is the NO, which appears in the second year. This is the simplest way to distinguish oneself: I am not you. In adolescence the NO appears again, with a force that did not exist at 2 years of age. The process of the construction of gender identity is concluded at around 3 years of age. Nonetheless, the process of the construction of the identity in general continues until the end of adolescence. Mahler [27] with his proposal regarding the initial process of separation/individuation, and Blos [28] through his approach to adolescence as the second period of separation/individuation, completes the proposals that are essential in this context.

Volkan [29] describes in detail the process of "intergenerational transmission" which he explains as a set of ideals and fears that pass from one generation to the next, having a powerful effect even in the span of decades and centuries. Standing out in this process is the phenomenon of "depositation" which overlaps with that of projective identification. The mother "deposits" within the child her dreams, hopes and fears and the way in which the child can escape this destiny written out for him. There is also a gender problem present here in the sense that the dreams of the mother relating to the social tribe (large group) to which she belongs refer especially to the values placed on the masculine figure in the society in which they live. The heroes are, in particular, men, and the stories relating to them are transmitted by the mother in particular. Collective identity, the feeling of belonging to the big group of the nation or homeland, has to do with processes of generational transmission and thus with depositation phenomena in which the mother, with her inevitably sexualised and sexualising vision, plays a primordial role.

The obvious influence of the environment does not impede in any way the valuing of the importance of genetics in the construction of identity. The field of Epigenetics [30] shows us how the environment is capable of powerfully influencing the expression of genetic material, offering thus a bridge that helps us to understand how early interpersonal connections are capable of acting over the chains of nucleotides and generating different proteins.

Emilce Dio Bleichmar, in her extraordinary text "The Spontaneous Feminism of Hysteria" [31], reveals how hysteria represents, in our culture, the largest exponent of the profoundly conflictive dimension of feminine sexuality. In the face of the devaluation of her gender, the woman, in our culture, tries out vicarious forms of narcissisation, adding certain phallic-like traits to her femininity or addressing a man who tells her who she is. Thus, the infantile/dependent personality or rather the hysterical personality and the phallic/narcissistic personality make up a psychopathological type whose pivot is the acceptance or rejection of stereotypes relating to gender roles. Among ourselves, the sexual enjoyment of the women who freely desires and obtains sexual satisfaction poses a transgression. This "spontaneous feminism" of the hysteria constitutes a form of reaction in the face of the devaluation of the feminine gender role among us. The hysterical conduct can thus be a manifestation of distancing of the women from the positions of power still in force.

Those who surround us serve a key function in the construction and development of our identity. The others act as a mirror and as a counterpoint, signalling what we lack and also what value we hold. Without question, the others contribute to the generation within ourselves of a sensation of pertinence to a group, they show us who is the other, and likewise they help us to build the experience of otherness. In a game of projections and introjections, such as is the relationship between the mother and baby, we build an individual identity that is still collective, in the mirror of those who are other. However, we must not forget that the image that we are given back by others undoubtedly contains aspects that do not belong to us, and therefore there is always something that is ours in the vision that we have of others and something of ours in that of theirs. Kristeva [32] bluntly affirms that only the acceptance of one's own otherness, of the strangeness that inhabits within us, can lead us to more human levels of relationships with others who surround us. Our internal world is certainly a world, conceived of diverse parts that blend together in different harmonies in order to create an interior landscape that mimics the variety and conflict of the external world.

Two events in the last decades illustrate that strange fluctuation in identity which affects both genders: on the one hand, the development of feminist proposals that seek a different place for women in the twentieth-century society—a place that isn't the traditional one for the wife/mother or lover, in order to recover in some way the place of the warrior woman, in the broadest sense of the term—and on the other hand the woman capable of thinking and acting freely and at the same time expressing her aggressive drive, to struggle, to compete and, why not, to win over the man who travels at her side. This appearance, for some, accompanies previous and parallel changes that occurred within the role of the man and the view that he had of the woman. The twentieth-century man becomes more misogynistic, more contemptuous of the woman, searches more for his identity through the rejection of all things feminine that may reside in him, including, of course, any satisfaction derived from submission. Many point out the abundance today of men that become "weak" fathers, devoid of authority and power. Clinically, we appreciate how often those "weak" fathers seem to enjoy a narcissistic satisfaction through identifying with the

exciting life of their adolescent offsprings [33]. In a socially tragic evolution, the questioning of father's authority comes together with the questioning of authority per se. Mothers today neither share authority with fathers nor victoriously take it from them. Authority dilutes into disappearance in Western societies, and the void left by this often "weak" father has not been filled by anyone. It appears that women begin to reach the summit of power and authority at the moment it becomes an empty shell.

The fading away of all personal authorities affects not only father figures but all authority figures in general. When we try to confront authority, we find smoke and mirrors; there is no person opposing us with arguments, and we are dragged by the faceless logic of today's power.

At the same time, in an almost parallel fashion to the feminist movement are proposals, especially literary ones, that talk about the attractive side of submission and the surrender on the part of women who freely choose that path among many others. From the Story of O up to Fifty Shades of Grey, there is a whole tradition of narratives that are openly masochistic and which in some way demonstrate a sensitive part of the woman and the entire social body. At a moment of almost complete liberty of thought and narration in the developed world, some women, and men, observe in fascinated fashion how the duality of sadomasochism seems to offer new modes of thought regarding parts of our desires that were previously unmentionable. Jean Paulhan, the prestigious Parisian man of letters and lover of Anne Desclos, the secret author (even for him) of the Story of O, indicates with what we can guess is a certain relief that masochistic fantasies express a true feminine desire to be submissive and dominated. Philosopher Manon Garcia in her book On ne nait pas soumise, on le devient [34] thinks submission is not a moral fault, but a destiny towards which women are endlessly invited. She points out that the real enemy of an egalitarian agreement between sexes is women's consent to their own submission. However, some authors such as Anita Phillips [35] observe that, as always, there are things that hide beneath the surface. The young woman who chooses to be submissive may be in search of something that goes beyond what her fascinated or proud partner may provide her. The submission of herself seems to open unknown doors and allows for the exploration of new inner worlds, and in this journey of discovery, the partner who exercises dominance can be merely a useful tool. Stoller [36] warns us that the simple search of pathology in sadomasochism presupposes a view that is too restrictive and which loses the importance of nuances related to the identity and personality of the protagonists.

# 9.5 Social Aspects of Self-Identity

Psychosocial identity is compounded of social and personal components, the shape of which can vary from context to context [11]. Surroundings beyond one's family, spanning the entire society, exert a continuous influence in the construction and development of identity. Society as a whole is in constant change, and because of that, this influence varies throughout different times and places.

Our Western society has changed its ways and the ways in which it organises itself in recent decades, bringing about notable changes in the roles expected of individuals according to gender. In general there has been a massive incorporation of women into the workplace, at a different pace and intensity, depending on the specific countries, of course, and this has obviously changed the aspects of the family, economics, health, education and politics in the entire society. Speaking on our contemporary welfare society, sociologist Javier Elzo [37] says: "the mother has had to leave the house; the father still hasn't returned". The new role that women have has been accompanied by an apparent sense of anxiety in their masculine counterparts, unsure of their role in this new society and going back and forth between indifference and hostile rejection, even voluntary over-involvement in the new order. The answers to questions such as "who am I?" or "what is my role?" are more complex than ever before, for everyone, for women who are developing a professional career without abandoning the traditional position of taking care of their own and for men who add to their usual role an attitude of caregiving, which has never in history been a role of theirs.

Society hopes and fears different things regarding the conduct of boys and girls. Parents and adults in general are attentively watching both and react in a different way. Concern over sissy behaviour in a boy far outweighs concern over tomboy activity in a girl [11]. There is a conviction that is implicit within society, in the sense that masculine identity is more fragile and carries with it more risks than the feminine identity, because of which it is considered necessary to understand and provide a continuity with regard to the conduct and attitudes of masculine children, in order to avoid anomalies in future gender identity. It is as if that masculine identity required constant validation from the environment and particularly from women within that environment. As they have done time and again, poets depict these complex problems with great precision: "... it is said that a man is not a man/unless he hears his name/come from the lips of a woman/this could be true...". It is fascinating to witness how the personal value of the man seems linked to the mere idea of being one. Thus, it is the others, especially the women, who give or take away value from the individual. In women, gender identity seems to be not so linked to personal value. Feminine gender identity is provided as a given and does not depend as much on confirmation from third parties such as is the case with men. To summarise, we would say that the woman needs confirmation of her worth, not of who she is. The man, on the other hand, needs to have who he is confirmed, because that is where his value lies.

Sexuality, especially adult sexuality represented by a couple that enjoy that union, always makes the social group uneasy. This group, submitting to primitive forces, observes the couple with mistrust and promotes the disengagement of men and women in order to return to that primitive and infantile sexuality pertaining to large groups. The couple has to constantly protect itself from that pernicious influence, knowing that the struggle has no end. Large groups, in which aggression has taken force and therefore functioning is even more primitive, do not tolerate mature sexuality among their ranks, and they make moves to articulate rules that regulate the sexuality of the couples, looking upon love and happy desire with hostile envy

[38]. From this we get that two human qualities that any totalitarian system will try to stamp out are doubt and personal intimacy, for both threaten the total control of individuals by the state [39]. In his novel in 1984, Orwell [40] describes how Big Brother watches and regulates love and hunts down the protagonist couple that has escaped its control. In one startling scene, the police savagely torture the male protagonist, and in his desperation, he tries to provide the information that would stop the pain. But there are no questions, and therefore he finds no answer. This goes on until a terrifying conviction overcomes him; he shouts, asking that she be the one who is tortured so that he might be spared. We can imagine the smile on the torturer in having achieved his objective: there is no bond that resists the state; love and sex are at the service of the group and do not exist without it.

Throughout history the same discovery is repeatedly found: the enormous difficulty in combining aggression and sexuality in woman. However, we find a long tradition of mixing violence and sexuality in men. The rape and capture of the enemy's women is a historical act sustained throughout cultures and time periods, from remote antiquity up to today. Sudan, Rwanda and Bosnia are recent scenarios in which violence against women and forced sexuality become another aspect of combat. It's a part that covers various ends, as with any other war act, from the sowing of terror within the enemy to the punishment of the enemy for his actions or even for the victor to humiliate him, leaving him with offspring that will perpetuate the humiliation. Also, the possibility of an animalistic and irresponsible sexuality that would never be allowed within the group may make up another part of the spoils of war. This is why, for the man, there is no difficulty in combining his roles as lover, father and warrior. Together with this terrible custom, which is well known, we find a historic footprint of another means for fusing eroticism and militarism. The homosexual link between men who fight together, more or less disguised and/or sublimated, forms a long tradition. The military fraternity shows a discreet path for the comrades to express affection, desexualised at first, that tends to be considered "purer" than the affection between a man and a woman. A classic example that has stayed in the collective memory is that of the so-called Sacred Band [41], the elite unit of the Theban infantry in the fourth century BC which remained undefeated through 40 years up to its complete annihilation by Philip II of Macedon in the Battle of Chaeronea. This combat group was, in accordance with tradition, composed of a 150 couples, of lover and beloved who fought and died together. The history of this undefeated phalanx who contrast with the famous 300 Spartans who, guided by Leonidas, contained the Persians in the Battle of Thermopylae has inspired poets and narrators throughout the centuries, turning the love, sexual or not, between warriors as something not only acceptable but sublime. The permanence of this legendary group in historic memory tells us, without question, about the fascination that the combination of violence and sexuality in men has instilled in our culture.

Giuliana Galli-Carminati [42] and other researchers of feminine identity approach the concept of "woman warrior", considering it the third pole of the female archetype. This would be a pole that throughout time will be left lacking all sexual and identity-related nuance before finally disappearing to the benefit of the two

other mythological female figures: the mother/wife and the lover. The authors, performing a brief historical analysis, demonstrate that in some of the most ancient civilisations, the figures of warrior goddesses occupied a distinguished place in the religious pantheon. In the majority of the cases, these warrior females could not maintain a complete sense of sexuality: or they were virgins in the current sense of the word (Greece), or they were limited to sexual relations without end up as mothers or wives (Sumer). In Semitic cultures in particular, those from which our Western culture derive, the view was rather misogynist, placing the woman in positions that are socially valued less and therefore taking here away from violent action. It would be tempting to venture a possible relationship between this strict separation of sexuality and violence in the Greco-Roman culture and the historical difficulty of the Christian civilisation in accepting a passionate and happy sexuality that goes beyond the reproductive. The myths of the Amazons, the Gorgon or the Furies, free and virgin, indicate to us how starting in antiquity the absence of sexuality was considered key in achieving a life free from submission to man. The warrior woman, independent and capable, had to pay a price, and this was her own sexuality, and she renounced to couple life as well as maternity. The reappearance among our cultural myths of feminine figures (cinema, comics, TV series, etc.) who are independent and capable of violence continues to demonstrate these ancestral parameters, as if we still lived in classic antiquity: the sexuality of these heroines is partial or absent. It continues to be impossible to integrate loving passion, maternity and violence within the same feminine figure.

The fact that the overwhelming majority of serial killers have been men could shed some light for us too, regarding identities and genders. It might be said that in the internal world of women, there is no possibility for a representation of the self that is charged with such meanness. The intense antisocial traits that are accompanied by the total lack of compassion that characterises psychopaths seem to characterise women less, perhaps through pressure and expectations that are social, cultural, genetic, hormonal, etc. Of course, there are some women capable of carrying out very violent and ruthless acts, but they are very rare outliers in a masculine world. In general, their participation in extreme sadistic acts is usually in the role of companion or assistants to the men who carry out the initiative in these crimes, either luring the victim into a trap or collaborating in the very torture and related assignments [43]. Remember the role of the young attractive woman who accompanies the magician in her role of distracting the public and helping the master in executing his tricks. Lest we forget, anyway, that it is precisely this diversion of the audience's attention that allows the performer to carry out his final surprise.

The impact of the social attitudes and views towards individuals according to their gender is not limited to the internal world of the protagonists and in favour of the development of identities that are more or less conflicted. Sometimes this effect has a vitally transcendent aspect, literally. The winner of the Nobel Prize in Economics, Amartya Sen, has analysed a worrying phenomenon [44–46]. In 1992, Sen published in the *British Journal of Medicine* a brief paper of great impact: "The Missing Women". It analysed how in some Asian countries such as India, China, Korea and others the small preponderance of women vs. men which can be found in

the rest of the world simply did not exist. These countries were "lacking" in many women, with an estimated number of many million women. In order to counteract the argument of some regarding the determinant importance of poverty in this phenomenon, Sen referred to the comparison of countries that were similarly poor in Africa, confirming that in those the proportion of women compared to men in the general population was similar to France or England and much different to the populations of the Asian countries indicated. The reason for this tragedy was, for Sen, the disparity in healthcare for girls compared to boys, which was related to a clear preference within these social groups for men instead of women. Already in his first analysis, Sen indicated the general education of the population and in particular of the women and girls as one of the fundamental ways to overcome this scourge. After returning to the problem, years later, Sen finds that medical attention to boys and girls has been partially balanced out in many of these countries. Nonetheless, the proportion of men and women has continued in the same vein. One new test of the data reveal a reality not perceived before: the medical technology allowed for many of those Asian countries to now come to know the gender of the babies before birth and brought about selective abortion of female foetuses. In this way, even though healthcare had been balanced for both sexes, the number of births of women decreased, and the end result was the reassertion of previous proportions and, thus, the absence of many women. In a recent review of this reality [46], Sen shows that in some of these social groups, the level of education of the population has risen clearly, and many women have obtained access to levels of training that are much greater than that of their mothers. These women are now more capable of providing the same care to their daughters and sons, although these are the women who access that technology and opt to selectively abort according to the gender of the baby prior to birth. Undoubtedly, there is a very important social aspect at the hour of acquiring an identity and, of course, at the hour of assigning value to that identity. The reality of the "missing women" obliges us to face this absence of value in persons of the female sex in different social groups. The lack of value that undoubtedly is also transferred by women in the group, women who can't escape those general values in which they are immersed and from which their lives, family and work, ideals and desires are forged.

We men and women weave the web of oppression. Every knot we tie submits us inexorably to the influence of forces beyond ourselves, which make up our identity, as individuals, as men and as women.

#### References

- 1. Erikson E. On the generational cycle. Int J Psychoanal. 1980;61:213-23.
- Kernberg OF. Identity: recent findings and clinical implications. Psychoanal Q. 2006;75:969–1003.
- Westen D. Self and society: narcissism, collectivism and the development of morals. New York: Cambridge University Press; 1985.
- 4. Westen D. The cognitive self and psychoanalytic self: can we put ourselves together? Psychoanal Inq. 1992;3(1):1–13.

- Lacan J. The mirror stage as formative of the/function as revealed in psychoanalytic experience. In: Ecrits: the first complete edition in English. New York: Norton & Company; 2006. p. 75–81.
- Fromm E. Psicoanálisis de la sociedad contemporánea: hacia una sociedad sana. México: Fondo de Cultura Económica; 1989.
- 7. Ermann M. Special issue on identity. Int Forum Psychoanal. 2004;13(4):209-83.
- 8. Meissner WW. The self as structural. Psychoanal Contemp Thought. 2000;23:373–416.
- 9. Applebaum A. Psychotherapeutic routes to structural change. Bull Mennin Clinic. 1994;58:37–54.
- Kernberg OK. Object relations theory and clinical psychoanalysis. New York: Jason Aronson; 1976.
- 11. Meissner WW. Gender identity and the self: I. Gender formation in general and in masculinity. Psychoanal Rev. 2005;92:1–27.
- 12. Stoller RJ. Sex and gender. London: Karnac Books; 1984.
- 13. Stoller RJ. Presentations of gender. New Haven, CT: Yale University Press; 1985.
- Benjamin J. Sameness and difference: toward an "overinclusive" model of gender development. Psychoanal Inq. 1995;15:125–42.
- 15. Stoller RJ. Sweet dreams: erotic plots. London: Karnac Books; 2009.
- 16. Damasio A. The feeling of what happens: body and emotion in the making of consciousness. New York: Mariner Books; 2000.
- 17. Erikson E. Childhood and society. New York: Norton; 1950.
- 18. Klein M, Heinman P, Isaacs S, Riviere J, editors. Developments in psychoanalysis. London: Hogarth Press; 1946.
- 19. Mitchell SA. Relational concepts in psychoanalysis: an integration. Cambridge, MA: Harvard University Press; 1988.
- Fonagy P. Psychosexuality and psychoanalysis. An overview. In: Fonagy P, Krause R, Leuzinger-Bohleven M, editors. Identity, gender and sexuality. London: Karnac Books; 2009.
- Kernberg O. Love relations. Normality and pathology. New Haven, CT/London: Yale University Press; 1995.
- 22. Laplanche J. Seduction, persecution, revelation. Int J Psychoanal. 1995;76:663–82.
- Chodorow NJ. Theoretical gender and clinical gender: epistemological reflections on the psychology of women. J Am Psychoanal Assoc. 1996;44S:215–38.
- 24. Diamond LM. Sexual fluidity. Understanding human love and desire. Cambridge/London: Harvard University Press; 2008.
- 25. Kohut H, Wolf ES. The disorders of the self and their treatment: an outline. Int J Psychoanal. 1978;59:413–25.
- 26. Spitz RA. The first year of life: a psychoanalytic study of normal and deviant development of object relations. Oxford: International Universities Press; 1965.
- 27. Mahler MS. On the first three subphases of the separation-individuation process. Int J Psychoanal. 1972;53(3):333–8.
- 28. Blos P. On adolescence: a psychoanalytic interpretation. New York: Simon and Schuster; 1966.
- 29. Volkan V. Psychoanalytic technique expanded: a textbook on psychoanalytic treatment. 2nd ed. Durham, NC: Pitchstone Publishing; 2012.
- 30. Szyf M. Epigenetics, DNA methylation, and chromatin modifying drugs. Annu Rev Pharmacol Toxicol. 2009;49:243–63.
- 31. Dio BE. El feminismo espontáneo de la histeria. Madrid: Adograf; 1985.
- 32. Kristeva J. Strangers to ourselves. New York: Columbia University Press; 1991.
- Gonzalez-Torres M, Fernandez-Rivas A. The disturbing presence of the father. Paternal function and its initial developments. Int Forum Psychoanal. 2019; https://doi.org/10.1080/08037 06X.2018.1564364.
- 34. Garcia M. On ne nait pas soumise, on le devient. Paris: Climats-Flammarion; 2018.
- 35. Phillips A. A defense of masochism. New York: Saint Martin's Press; 1998.
- 36. Stoller RJ. Pain and passion. New York: Da Capo Press; 1991.

- Elzo, J. Tipología y modelos de relación familiar. In Congreso La familia en la sociedad del siglo. Vol. 21, 2003, p. 17–8.
- 38. Kernberg OF. The sexual couple: a psychoanalytic exploration. Psychoanal Rev. 2011;98:217–45.
- 39. Lemann N. The new deal we didn't know. The New York Review of Books. 2013, September 26. p. 23–5.
- 40. Orwell G. 1984 Signet Classics. London (Originally published, 1950).
- 41. Leitao D. The legend of the sacred band. In: Nussbaum M, Sihvola J, editors. The sleep of reason. Erotic experience and sexual ethics in ancient Greece and Rome. Chicago and London: The University of Chicago Press; 2002.
- 42. Perroud N, Galli-Carminati G, Carminati G, Garbino MV. Le troisieme pole de l'archetype feminin. In: Galli-Carminati G, editor. La femme guerriere. Le troisieme pole de l'archetype feminin. Firenze: L'Autore Libri Firenze; 2009.
- 43. Stone M. The anatomy of evil. New York: Prometheus Books; 2009.
- 44. Sen A. Missing women. Br Med J. 1992;304:587-8.
- 45. Sen A. Missing women—revisited. Br Med J. 2003;327:1297–8.
- 46. Sen A. India's women: the mixed truth. New York Rev Books. 2013;LX(15):24-7.



# Psychosexual Development, Intersex States, and Sexual Dysfunctions

10

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> The night dark before its hourheavily, steadily, the rain lushes and sprinkles to complete its taskas if assisting the encroachments of our bodies we occupy but cannot cure.

Sufferer, how can you help me, if I use your sickness to increase my own?

Will be always be one up, the other down, one hitting bottom, the other flying through the treesseesaw inseparables?

> Robert Lowell. Seesaw. "Day by day", Ed. Harper Collins Canada Ltd., 1977.

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#### **Abstract**

Within human sexuality, three basic pillars are entwined, mainly biological factors; individual personality or psychosexuality, which encompasses the sexual identity of the concerned subject, as well as the interaction and conveyance of the different affections to the closest beings (together with the relational aspects derived) and the life circumstances at each particular moment; and the sociocultural environment in which it is lived.

The sexual development of an individual bears a resemblance with a relay race: in a chronological sequence, genetic and chromosomal influences, hormonal, environmental, and psychosocial factors will appear. Each of them, regardless of the opinion of different authors and schools, will play the main role in certain moments, although in the end all will have needed the others to achieve the ultimate goal of a grown and sexually mature and healthy individual (according to an interactionist model), which in his turn will lead to the enhancement of the personal identity (therein included the sexual identity and narcissism itself).

Sexuality is therefore a more general phenomenon than plain physical sex. In that regard, it is worth noting a curious paradox: human sexual behavior is scarcely known, at least from a scientific perspective and through epidemiological and gender-relevant designed and controlled studies.

Finally, intersex states and sexual dysfunctions represent a group of heterogeneous disorders and include an array of processes, which affect the general population, generating a high impact at the life quality and interpersonal relationship levels, and they will be analyzed from a multidimensional and not only DSM-5 perspective.

# 10.1 A Brief Introduction to the "Normal" or "Healthy" Sexuality

Sexuality (or sexual behavior) constitutes one of the most complex aspects of human experience. The human being is a social animal, which needs a connection to others for his physical and psychological development. In all the different academic fields of study of the human being, it seems to exist a broad consensus when it comes to be considered in terms of an ape that could not possibly exist if it was outside a close relational network that provides emotional and material support.

Biologists who study the central nervous system (CNS) tend to picture the human being as a brain interconnected with other brains, and authors such as Damasio point out the encounters with other human beings to be the basic element in the construction of the self and of human conscience: "feelings have not been given the credit they deserve as motives, monitors and negotiators of human cultural endeavors; feelings, and more generally affect of any sort and strength are the unrecognized presences at the cultural conference table" [1].

Bonding with an "other" shapes us and changes us, and the constant recording of those changes in our CNS determines the emergence of a nuclear conscience that will develop until it evolves into the so-called extended conscience, support of our biographical identity, which connects our present to the life history that comes before us.

That interpersonal bond acquires the highest complexity in the couple relationship, which involves a close and continuous cohabitation usually of two people that consider themselves to be a living pair, a union between two human beings, common in all of the species' groups, as the predominant way of life. This close cohabitation implies an adaptation to the needs, preferences, and fears of the other.

That same complexity is stressed during the sexual encounter, which in the context of an emotionally significant relationship constitutes possibly the most complex bonding experience between human beings. For that reason, it is no surprising that this is a complex area of exploration and evaluation, in which with an enormous frequency alterations and problems arise. Furthermore, we, as mental health professionals, tend to consider sexual life as an interpersonal area that works at its best as soon as all the other spheres of personal life show no problems. Nothing could be further from the truth and from desire.

Desire is the driving force behind sexuality that propels us toward each other and which, from an academic point of view, has received much less attention than it should have. Sexual relations generally start with desire, and nowadays it is understood that desire can take place spontaneously (innate desire) as much as it can be stimulated externally or either through cognitive or emotional motivations. Included among the external or cognitive incentives are that of feeling closer to the partner, experiencing sexual pleasure, enhancing the own self-image, easing tension, diminishing the feeling of guilt that arises from a low sexual frequency, and that of conceiving a child [2].

We should not forget that sexual life and affective life are two sides of the same bond. In evaluating the deep interpersonal relationships, attention must be paid to the subject ability to fall in love and to build a meaningful relationship that includes the sexual sphere. There is "love pathology" beyond sexuality which deserves a deeper attention.

When we talk about a "normal" or "healthy" human sexuality, we find ourselves facing an extremely complex phenomenon, difficult to be defined. The attempting to disentangle what the normal patterns might be is of little use, given the variation between life experiences and the polymorphism of sexual behaviors from different people and across different cultural settings.

In that regard, it is worth noting a curious paradox: human sexual behavior is scarcely known, at least from a scientific perspective and through epidemiological and relevant well-designed and controlled studies. In the mass media, the attention paid to this sphere is constant and debates and comments on different aspects of sexual behavior, and its problems take up much space in a great quantity of magazines. This could lead us to think that there was ample scientific literature providing a basis to explain in detail normal and pathological sexual behaviors from people. Nothing is further from the truth. Studies of the general populations are strikingly scarce [3]. Taking into account the influence that cultural and social features bear on sexual behavior, it seems clear the need to replicate any study on sexuality in different countries, ethnic groups, cultures, religious beliefs, etc.

The scarcity of information regarding the general population is even larger when we focus on concrete collectives, for instance, psychiatric patients. There are again scant publications on this matter, which still offer quite a partial view of that collective [4].

Within human sexuality, three basic pillars are entwined, mainly:

Biological factors. In this case, we can point out that the etiology and consistence of findings in normal sexual dimorphisms of the adult human brain are still unresolved attending to primary and secondary brain morphogenesis [5] and to magnetic resonance imaging in vivo studies focused on gray matter growth, sexual dimorphism, and cerebral asymmetry [6, 7] or Biobank studies [8].

Many sex differences in the brain and behavior are programmed during development by gonadal hormones, but the genetic, epigenetic, and cellular mechanisms are incompletely understood. A recent study published by Bae et al. [9] points out that the development and function of our brain are governed by a genetic blueprint, which reflects dynamic changes over the history of evolution. Recent progress in genetics and genomics, facilitated by next-generation sequencing and single-cell sorting, has identified numerous genomic loci that are associated with a neuroanatomical or neurobehavioral phenotype. The authors review some of the genetic changes in both protein-coding and noncoding regions that affect brain development and evolution, as well as recent progress in brain transcriptomics.

More recent studies have found that immune system-derived mast cells are a primary target for the masculinizing hormone estradiol and that mast cells are in turn primary mediators of brain sexual differentiation. These findings identify a novel non-neuronal origin of brain sex differences and resulting motivated behaviors [10].

And even a recent work published by Rohrback et al. [11] has revealed the existence and developmental dynamics of cerebral cortical copy number variations (CNVs) in mouse, showing that their prevalence increases through midneurogenesis. Authors' improved sequencing approach also allowed characterization of previously undocumented neural CNVs below 1 Mb in size, comprising half of all alterations. These data demonstrate the existence of myriad CNVs, which genomically diversify neural cells before incorporation into the mature organization of the brain.

- Individual personality or psychosexuality, which encompasses the sexual identity of the concerned subject, as well as the interaction and conveyance of the different affections to the closest beings (together with the relational aspects derived) and the life circumstances at each moment.
- The sociocultural environment in which it is lived.

The sexual development of an individual bears a resemblance with a relay race, according to Money [12]: in a chronological sequence, genetic and chromosomal influences, hormonal and immune system, and environmental and psychosocial factors will appear. Each of them, regardless of the opinion of different authors and schools, will play the main role in certain moments, although in the end all will have needed the others to achieve the ultimate goal of a grown and sexually mature and healthy individual (according to an interactionist model).

# 10.2 Psychosexual Development

The sex of the embryo is determined at the moment of fertilization, depending on the chromosome of the spermatozoid, either X or Y. However, during human embryogenesis, some weeks go by without noticeable differences, even under an electronic microscope, between a female and a male fetus. This is known as the sexually undifferentiated period in the sexual development [13].

As it has been pointed above, recent studies have shown that male rates had greater numbers and more activated mast cells in the cortical preoptic area (POA), a brain region essential for male copulatory behavior, than female littermates during the critical period for sexual differentiation. Inhibiting mast cells with a stabilizing agent blunted the masculinization of both POA neuronal and microglial morphology and adult sex behavior, whereas activating mast cells in females, even though fewer in number, induced masculinization. Treatment of newborn females with a masculinizing dose of estradiol increased mast cell number and induced mast cells to release histamine, which stimulated microglia to release prostaglandins and thereby induced male-typical synaptic patterning. These findings identify a novel non-neuronal but immunity and inflammatory origin of brain sex differences and resulting motivated behaviors [10].

Or even it seems almost demonstrated the existence of myriad CNVs which genomically diversify neural cells before incorporation into the mature organization of the brain [11].

During the undifferentiated period, the gonadal crests, outlines of the future gonads, are bipotential and will evolve into testicles or ovaries depending on the genetic makeup. In parallel, in the same mesoderm, we find Wolff's mesonephric duct and Müller's paramesonephric duct, both outlines of the internal genitalia as well, but unipotentials in this case.

With regard to the external genitalia, they result from the cloaca and the cloacal membrane, the urorectal septum being in charge of the urogenital division of the rectum. All the genital outlines are bipotential, with a differentiation dependent on the presence or absence of testicular hormones.

Sexual differentiation comes to establish, in normal conditions, around the 7th week of the embryonic development, considered since the last menstruation date [13].

Thus, in the XY individuals, the gonadal crests are differentiated forming the fetal testicles, the germinal cells of which, differentiated into spermatogonial cells, will divide through mitosis, not entering meiosis until puberty. These cells are accompanied, forming the seminiferous tubules, by the Sertoli cells, of somatic origin, and the Leydig cells, at an interstitial level, in charge of the expression of proteins that are key in the consequent sexual differentiation, among which we can find the Anti-Müllerian Hormone (AMH).

In the case of fetuses XX, the gonads stay with an undifferentiated appearance for a longer period of time. Moreover, and also unlike the XY fetus, the germinal cells, differentiated into oogonial cells, proliferate through mitosis until the 4th month, when they initiate the meiosis stage until the diplotene stage, which stops shortly before birth, restarting at puberty with each ovarian cycle.

The presence of the Y chromosome becomes the determining factor of the sexual development of the fetal gonad. Concretely, in its short arm, we find the SRY gene (Sex-determining Region Y chromosome). Although the cell mechanisms through which it works aren't precisely known yet, the gene SRY is deemed to perform the migration function and that of differentiating all the three main cell structures [13]:

- We find the germinal cells differentiation into spermatogenic cells.
- The Sertoli cells start to show a specific pattern of expression characterized by an increase of SOX9 (protein of the SRY family) and of AMH, together with a reduction of DAX1 levels, its gene being located in the X chromosome.

  There is experimental evidence that SRY and DAX1 interact in early stages of the gonadal crests. Thus:
  - In XY individuals, there is only one allele of the SRY gene and just one allele of the DAX1 gene. In such conditions, SRY seems to be dominant and allows the testicular differentiation with the resulting expression of genes typically testicular, such as SOX9 and AMH. Nevertheless, not only the SRY levels but also their chronology of expression will be determining, given that a delay in the expression of SRY would allow an anti-testicular action of DAX1.
  - In XX individuals, the absence of SRY results in an increase of DAX1 levels in the gonad that is differentiated in an ovarian sense. In spite of that, DAX1 does not appear to be essential for the development of the ovary, for mice DAX1. Knockout does present a fact that has classically led to conclude that the mere absence of SRY results in the ovary development. However, although the absence of SRY is imperative, it seems logical to imagine that some kind of pro-ovarian genes must exist, unknown to date.
- Finally, from week 8th of pregnancy, the Leydig cells will be in charge of the androgen production.

On the basis of such provisions, we can sum up the sexual differentiation process as follows (Figs. 10.1 and 10.2):

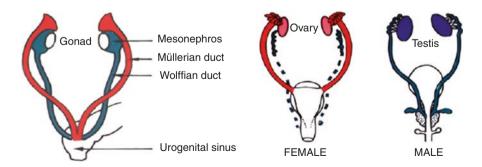


Fig. 10.1 Embryo-fetal sexual differentiation

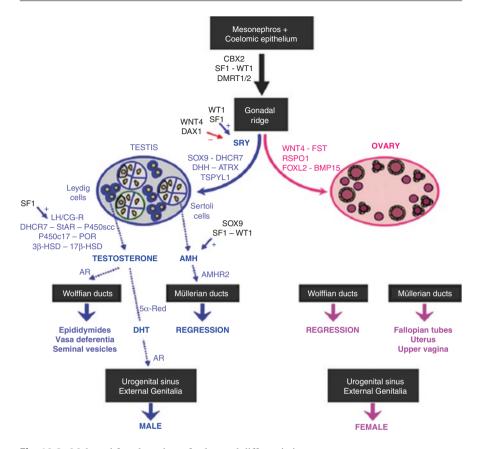


Fig. 10.2 Male and female embryo-fetal sexual differentiation

- Internal genitalia. Under the action of the testicular androgens, the Wolffian mesonephric ducts give rise in the male fetus to the epididymis, vasa deferentia, and seminal vesicles. In the female sex, given the absence of anti-Müllerian hormone (AMH), the Müllerian paramesonephric ducts form the uterine tubes, the uterus, and the upper third of the vagina. Therefore, the Wolffian ducts degenerate in the XX fetus due to the lack of androgens, whereas the Müllerian ducts return in the XY fetus by action of the AMH. It should be noted that the action time frame of the AMH is short: the testicular secretion starts by the end of the 7th week, and the Müllerian ducts become refractory to its action from the 10th week.
- External genitalia: the undifferentiated outlines evolve into male structures under the action of the dihydrotestosterone, a powerful androgen derived from the action of the 5-α-reductase enzyme on the testosterone. Thus, the genital tubercle originates the penis, whereas the labioscrotal folds enlarge and fuse in the anteposterior sense to form the scrotal bags. In the female fetus, the lack of androgens allows the genital tubercle to originate the clitoris, and the urogenital folds

to remain separate forming the labia majora. However, the mere presence of testosterone and AMH is not enough, for the final action will depend on the binding of each molecule to its specific receptor, and on the proper functioning of the subsequent molecular cascade.

Well then, that same sexual differentiation phenomenon proves to be more complex and determinant, given that under the influence of the sexual hormones circulating in the fetus, the dimorphic development of certain brain areas is produced as well. Furthermore the brain, like the internal genitalia, is monotypic, and it also prevails the feminization principle, unless there is an adequate level of circulating androgens [14].

Sexual differentiation of the human brain takes place approximately between weeks 16 and 28 of the embryonic development, and the specific hypothalamic and hypophyseal functions (cyclic in women and no cyclic in men) are determined in that moment.

The hypothalamus is considered to be the main regulating center of sexual behavior in humans. The preoptic nucleus produces the hormone that releases gonadotropins (GnRH), which stimulates the anterior pituitary so it can in its turn produce the luteinizing hormone (LH) and the follicle-stimulating hormone (FSH). Both control the steroid hormone secretion by the gonads (estradiol, progesterone, and testosterone).

This complex system of hypothalamus-hypophysis-gonads presents a secretory self-regulation by means of positive and negative feedback mechanisms. Moreover, the GnRH modulates the catecholaminergic neurotransmission, direct and indirect arbiter of the sexual output of the individual (while dopamine stimulates the sexual function, and serotonin and prolactin inhibit it, becoming crucial in this field the balance dopamine/serotonin). Other substances implicated in the complex world of the neurochemical interactions that modulate human sexuality are GABA, ACTH, cortisol-releasing peptide, endogenous opioids, and acetylcholine [14].

The secondary sexual characteristics are induced by the central nervous system (CNS) and controlled by a substantial increase of the circulating androgens or estrogens, as well as the female-specific functions regarding menstruation, gestation, and lactation. It is still unknown the precise way in which CNS "rules" the beginning of puberty. It has been considered that one of the implicated mechanisms is the reduction of the hypothalamus sensitivity to hormonal negative feedback [15].

Since puberty, hormonal unbalances may alter the secondary sexual characteristics generating different physical alterations. Nevertheless, the influence of the hormonal levels on desire and sexual behavior is much less clear in this point of development and in subsequent stages.

Once the fundamental biological factors in the formation of human sexuality are determined, it is worth going deeper into the other fundamental pillar, that is to say, that related to the formation of a sexual identity or psychosexuality.

Communication and early social learning are of a paramount importance in determining the early sexual behavior. Therefore, control over sexual behavior as

well as of mating within our species is to a great extent determined by the earliest social interactions, together with the aforementioned biological determinants.

In both sexes, the inadequate availability of sexual hormones in the blood plasma reduces the intensity of the sexual desire. But when the levels are adequate, the dependence of sexual desire on their fluctuations is negligible in comparison to the relevancy of the psychosocial kind of stimuli. McConaghy [16] believes that the female sexual desire can be more influenced by psychosocial than the masculine one. Even though, it is surprising the paucity of scientific concerning this issue.

The development and maturing of the individual sexuality, together with that of the personality, go hand in hand with the establishment of the ability to experience love to certain objects, sexual or not (parental, filial, narcissistic, group). In the case of sexual love, we can say that "healthy" sexuality is accompanied by the foundation of a certain degree of intimacy, empathy, and confidence in the loved object, which in their turn lead to the enhancement of the personal identity (therein included the sexual identity and narcissism itself). These values become the fundamental basis of a relationship in which sexual activity plays the role of positive reinforcement and affective catalyst, leaving aside its reproductive function.

Sexuality is therefore a more general phenomenon than plain physical sex and a more restricted one than the set of behaviors derived from the libidinal drive and directed according to Freud toward the achievement of pleasure and, according to many post-Freudian authors (such as Fairbairn), toward the establishment of interpersonal relationships [17].

There is a widespread consensus in the psychoanalytical literature on the key importance of the earlier relationships in the construction of the gender identity and the sexual orientation. Authors such as Kernberg [15, 16] from a conciliatory perspective based upon the theory of object relations emphasize the relevant role of the relational configurations that populate the internal world of boys and girls. They are the result of the incorporation of the so-called object relations dyads, constituted of one representation of the self, another of the object and an affection that bonds them together.

Contemporary authors such as Stoller [18–21], specially dedicated to this sphere of knowledge, point out how the gender identity seems to be acquired in very early stages.

The utmost significance that used to be attributed to the "Oedipal complex" isn't ascribed to it anymore, and it constitutes now nothing but a cultural construction of mythical proportions. It must be noted that from certain sectors of psychoanalysis, it is also highlighted that the sense of the self and of the other evolve through the fact that separated minds are able to share feelings and intentions in a process of mutual recognition. This recognition can be established through a dyad mother/son, or father/daughter or in any asymmetrical relationship, as long as the needs of the other do not get falsified through constructions or representations which justify and disguise domination.

The androcentrism of the Psychoanalytical Theory concerning sexual differences stems from that point, of the double absence and invisibility of that which the

father does in the scenario where the girl and the mother end finding their place and developing their subjectivity [22].

In fact the dominant factor in humans, which determines the intensity of sexual desire, leaving aside the aforementioned hormonal and immunological factors, is of an affective-cognitive kind and clearly constrained by psychosocial factors. It is worth noting at this point how the affective memory is related to the limbic system, which is the nervous substrate of affection and of the rest of the appetitive functions [1].

Because the sexual activation also includes the implementation of the limbic system under the influence of a particular cognitive-affective state, which stimulates the peripheral and central nervous systems that determine the congestion, lubrication and increases focused sensitivity of the genital organs, providing a central feedback "self-realization" of that genital activation and the subsequent psychological excitement.

In that regard, Kernberg [15, 16, 23, 24] adds that the sexual arousal is a specific affection that shows all the features of the affective structures and constitutes the central building block of the so-called sexual or libidinal drive as general motivational system. Sexual arousal is the basic affection that constrains the appearance of a more complex psychological phenomenon, erotic desire, in which the sexual arousal appears bound with the emotional relationship with a specific subject.

The source of desire is not an anatomic body, but a body that is built through the array of discourses and intersubjective practices. Both girls and boys organize themselves through their relationship with other subjects (for instance, the mother) who are not just objects for the child, because both the girl and the boy are able to recognize that subject as different from them and, at the same time, as akin. That way, the intersubjectivity plays a role in the structuring of the psychological world. It may be noted that uneven consequences arise from a double sexual standard, the fact that admiring women or giving them recognition only for their physical attributes poses a difficulty to their mental balance, as well as the extra-work to which the female psyche is set out if it intends to reconcile the multiplicity of demands of its motivational systems [25].

To conclude this brief introduction, we will attempt to define in a simple and operational way that there is a general agreement to consider an "abnormal or deviant" sexual behavior [26]:

That is destructive or damaging to the subject who displays it and to those who get involved in it

That is not oriented to the other in a strict sense

That excludes the stimulation of the own genital organs and of those of the partnerThat is inappropriately associated to feelings of guilt and/or anxiety

And that shows a repetitive nature of a compulsive kind

We share with many authors a preoccupation arisen from the manifest neglect in the clinical practice to document the medical/sexual history and its psychopathological manifestations in the individuals who visit the doctor. More frequently than would be desirable, it is the health professional themselves (unlike the patients) who perceive this issue as a complicated area to explore, and thus subject to be avoided. It is essential to explore the patient love life, including sexual patterns as well as the fantasies and the nature of the object relations that are established in the context of their sexual behavior [23].

#### 10.3 Intersex States

"Intersex" is a general term used for a variety of conditions in which a person is born with a reproductive or sexual anatomy that does not seem to fit the typical definitions of female or male. For example, a person might be born appearing to be female on the outside, but having mostly male-typical anatomy on the inside. Or a person may be born with genitals that seem to be in between the usual male and female types—for example, a girl may be born with a noticeably large clitoris, or lacking a vaginal opening, or a boy may be born with a notably small penis, or with a scrotum that is divided so that it has formed more like labia. Or a person may be born with mosaic genetics, so that some of her cells have XX chromosomes and some of them have XY.

Though we speak of intersex as an inborn condition, intersex anatomy does not always show up at birth. Sometimes a person is not found to have intersex anatomy until she or he reaches the age of puberty, or finds himself an infertile adult, or dies of old age and is autopsied. Some people live and die with intersex anatomy without anyone (including themselves) ever knowing.

Which variations of sexual anatomy count as intersex? In practice, different people have different answers to that question. That's not surprising, because intersex is not a discreet or natural category.

What does this mean? Intersex is a socially constructed category (gender category) that reflects real biological variation. To better explain this, we can liken the sex spectrum to the color spectrum. There is no question that in nature there are different wavelengths that translate into colors most of us see as red, blue, orange, and yellow. But the decision to distinguish, say, between orange and red orange is made only when we need it—like when we are asking for a particular paint color. Sometimes, social necessity leads us to make color distinctions that otherwise would seem incorrect or irrational, as, for instance, when we call certain people "black" or "white" when they are not especially black or white as we would otherwise use the terms [27].

In the same way, nature presents us with sex anatomy spectrums. Breasts, penises, clitorises, scrotums, labia, and gonads—all of these vary in size and shape and morphology. So-called "sex" chromosomes can vary quite a bit, too. But in human cultures, sex categories get simplified into male, female, and sometimes intersex, in order to simplify social interactions, express what we know and feel, and maintain order.

So nature does not decide where the category of "male" ends and the category of "intersex" begin, or where the category of "intersex" ends and the category of "female" begins. Humans decide. Humans (today, typically doctors) decide how

small a penis has to be, or how unusual a combination of parts has to be, before it counts as intersex. Humans decide whether a person with XXY chromosomes or XY chromosomes and androgen insensitivity will count as intersex.

In our work, we find that doctors' opinions about what should count as "intersex" vary substantially. Some think you have to have "ambiguous genitalia" to count as intersex, even if your inside is mostly of one sex and your outside is mostly of another. Some think your brain has to be exposed to an unusual mix of hormones prenatally to count as intersex so that even if you're born with atypical genitalia, you're not intersex unless your brain experienced atypical development. And some think you have to have both ovarian and testicular tissue to count as intersex.

Rather than trying to play a semantic game that never ends, the Intersex Society of North America (ISNA), founded in 1993, takes a pragmatic approach to the question of who counts as intersex. They work to build a world free of shame, secrecy, and unwanted genital surgeries for anyone born with what someone believes to be nonstandard sexual anatomy [27].

By the way, because some forms of intersex signal underlying metabolic concerns, a person who thinks she or he might be intersex should seek a diagnosis and find out if she or he needs professional healthcare.

And how common is intersex? To answer this question in an uncontroversial way, you'd have to first get everyone to agree on what counts as intersex and also to agree on what should count as strictly male or strictly female. That's hard to do. How small does a penis have to be before it counts as intersex? Do you count "sex chromosome" anomalies as intersex if there's no apparent external sexual ambiguity? Here is what we do know: if you ask experts at medical centers how often a child is born so noticeably atypical in terms of genitalia that a specialist in sex differentiation is called in, the number comes out to about 1 in 1500 to 1 in 2000 births. But a lot more people than that are born with subtler forms of sex anatomy variations, some of which won't show up until later in life.

Below, we provide a summary of statistics (Table 10.1) drawn from a revision article by Brown University researcher Anne Fausto-Sterling et al. [26]. The basis for that article was an extensive review of the medical literature from 1955 to 1998 aimed at producing numeric estimates for the frequency of sex variations. Note that the frequency of some of these conditions, such as congenital adrenal hyperplasia, differs for different populations. These statistics are merely approximative.

Intersex conditions include a variety of syndromes in which persons have gross anatomical or physiological aspects of the opposite sex [29].

The following is a list of disorders of sex development that sometimes involve intersex anatomy [28]. Some of them will be slightly explained in more detail because of its high prevalence or consequences.

#### • 5-α-reductase Deficiency

 $5-\alpha$ -reductase deficiency, in which an enzymatic defect prevents the conversion of testosterone to dihydrotestosterone, is required for prenatal virilization of the genitalia. At birth, the affected person appears to be female, although some anomaly is visible. In earlier generations, before childhood identification of the

| Not XX and not XY   | 1 in 1666 births   |
|---|--------------------|
| Klinefelter (XXY)   | 1 in 1000 births   |
| Androgen insensitivity syndrome   | 1 in 13,000 births |
| Partial androgen insensitivity syndrome                                 | 1 in 130,000       |
|   | births             |
| Classical congenital adrenal hyperplasia                                | 1 in 13,000 births |
| Late-onset adrenal hyperplasia  | 1 in 66            |
|   | individuals        |
| Vaginal agenesis  | 1 in 6000 births   |
| Ovotestes   | 1 in 83,000 births |
| Idiopathic (no discernable medical cause)                               | 1 in 110,000       |
|   | births             |
| Iatrogenic (caused by medical treatment, for instance, progestin        | No estimate        |
| administered to pregnant mother)  |                    |
| 5-Alpha reductase deficiency  | No estimate        |
| Mixed gonadal dysgenesis  | No estimate        |
| Complete gonadal dysgenesis   | 1 in 150,000       |
|   | births             |
| Hypospadias (urethral opening in perineum or along penile shaft)        | 1 in 2000 births   |
| Hypospadias (urethral opening between corona and tip of glans penis)    | 1 in 770 births    |
| Total number of people whose bodies differ from standard male or female | 1 in 100 births    |
| Total number of people receiving surgery to "normalize" genital         | 1 or 2 in 1000     |
| appearance  | births             |

**Table 10.1** Frequency of intersex variations [28]

disorder was common, these persons, raised as girls, virilized at puberty and changed their gender identity to male. Later generations were expected to virilize and, thus, may have been raised with ambiguous gender. Recently, there are reports of a small number of patients for whom early removal of the testes and socialization as girls have resulted in a female gender identity [30].

#### Androgen Insensitivity Syndrome (AIS)

Androgen insensitivity syndrome was formerly called testicular feminization. In these persons with the XY karyotype, tissue cells are unable to use testosterone or other androgens. Therefore, the person appears to be a normal female at birth and is raised as a girl. She is later found to have cryptorchid testes, which produce the testosterone to which the tissues do not respond, and minimal or absent internal sexual organs. Secondary sex characteristics at puberty are female because of the small, but sufficient, amount of estrogens, which results from the conversion of testosterone into estradiol. The patients usually sense themselves as females and are feminine. However, some experience gender conflicts and distress [30].

- Aphallia
- Clitoromegaly (large clitoris)
- Congenital Adrenal Hyperplasia (CAH)

Congenital virilizing adrenal hyperplasia was formerly called the adrenogenital syndrome. An enzymatic defect in the production of adrenal cortisol, beginning

prenatally, leads to overproduction of adrenal androgens and virilization of the female fetus. Postnatally, excessive adrenal androgen can be controlled by steroid administration. The androgenization can range from mild clitoral enlargement to external genitals that look like a normal scrotal sac, testes, and a penis, but hidden behind these external genitals are a vagina and a uterus. The patients are otherwise normally female. At birth, if the genitals look male, children are assigned to the male sex and so reared; the result is usually a clear sense of maleness and unremarkable masculinity. If the children are assigned to the female sex and so reared, a sense of femaleness and femininity usually results. If the parents are uncertain about the sex of their child, a hermaphroditic identity results. The resultant gender identity usually reflects the rearing practices, but androgens may help determine behavior. Children raised unequivocally as girls have a more intense tomboy quality than that found in a control group. The girls most often have a heterosexual orientation. Some of these children experience gender identity conflicts and do not feel comfortable in the sex of assignment. Higher rates of bisexual or homosexual behavior in adulthood have been reported [30].

- Gonadal Dysgenesis (partial and complete)
- · Hypospadias
- Klinefelter's Syndrome

Klinefelter's syndrome it's related to an extra X chromosome present, and therefore the final karyotype is XXY. At birth, patients appear to be normal males. Excessive gynecomastia may occur in adolescence. Testes are small, usually without sperm production. Such persons are tall, and body habitus is eunuchoid. Reports suggest a higher rate of GID [30].

- Micropenis
- Mosaicism Involving "Sex" Chromosomes
- MRKH (Müllerian Agenesis; Vaginal Agenesis; Congenital Absence of Vagina)
- Ovo-teste (Formerly Called "True Hermaphroditism")
- Partial Androgen Insensitivity Syndrome (PAIS)
- Progestin-Induced Virilization
- Swyer Syndrome
- Pseudohermaphroditism

Infants born with ambiguous genitals are pseudohermaphrodites. True hermaphroditism is characterized by the presence of both testes and ovaries in the same person. It is a rare condition. Sex assignment based on the genitals' appearance at birth determines gender identity, which is male, female, or hermaphroditic, depending on the family's conviction about the child's sex. Recently, treatment has changed, postponing sex assignment based on the appearance of the genitalia at birth to adolescence, when the child is included in the decision-making process. Male pseudohermaphroditism is incomplete differentiation of the external genitalia even though a Y chromosome is present; testes are present but rudimentary. Female pseudohermaphroditism is the presence of virilized genitals in a person who is XX, the most common cause being the adrenogenital syndrome described previously [30].

#### • Turner Syndrome

Turner syndrome, in which one sex chromosome is missing, such that the sex karyotype is simply X. Children have female genitalia, are short, and, possibly, have anomalies such as a shield-shaped chest and a webbed neck. As a consequence of dysfunctional ovaries, they require exogenous estrogen to develop female secondary sex characteristics. Gender identity is female [30].

The cases of hermaphroditism or androgyny intersex individuals, as they start been calling, are not as isolated as we think. Statistics conclude that there is a case for every 250 people, and according to the World Health Organization, affects 1% of world population. In Germany, each year, 400 children are born without defined sex, and in the USA, every day five surgical sex assignment operations are done in newborns. These kinds of operations are not harmless and that endanger the patient's health and may damage the genitals or decrease its sensitivity beyond his supporters claim that sex-role assignment prevents the baby from suffering future discrimination and relieves emotional stress experienced by parents [30].

Because intersex conditions are present at birth, treatment must be timely, and some physicians believe the conditions to be true medical emergencies. The appearance of the genitalia in diverse conditions is often ambiguous, and a decision must be made about the assigned sex (boy or girl) and how the child should be reared.

Problems should be addressed as early as possible, so that the entire family can regard the child in a consistent, relaxed manner. This is particularly important because intersex patients may have gender identity problems because of complicated biological influences and familial confusion about their actual sex. When intersex conditions are discovered, a panel of pediatric, urological, and psychiatric experts usually determines the sex of rearing on the basis of clinical examination, urological studies, buccal smears, chromosomal analyses, and assessment of the parental wishes.

Education of parents and presentation of the range of options open to them is essential because parents respond to the infant's genitalia in ways that promote the formation of gender identity. One option is for parents to decide against immediate surgery for ambiguous genitalia but assign the label of boy or girl to the infant on the basis of chromosomal and urological examination. They can then react to the child according to sex-role assignment with leeway to adjust the sex assignment should the child act definitively as a member of the sex opposite to the one designated.

If the parents decide on surgery to normalize genital appearance, it is generally undertaken before the age of 3 years. It is easier to assign a child to be female than to assign one to be male because male-to-female genital surgical procedures are far more advanced than female-to-male procedures. That is an insufficient reason, however, to assign a chromosomal male to be female.

Some groups oppose surgical interventions on principle. Some advocate that the US Congress pass laws prohibiting doctors from performing such surgery, especially because the infant cannot consent. The goal standard of treatment, however, is to have genitals concordant with chromosomal, biological, physiological, and

other genetic antecedents, thus allowing the development of a person with healthy gender identity. If this cannot be determined with certainty, then treatment can and should wait.

The voices of the intersex community begin to rise, and there are organizations that look after their rights as OII (Organization Intersex International) or ISNA (Intersex Society of North America) in the USA. They are contrary to the fact that sexual identity of the newborn must be decided in an operating room by the medical team, and advocate that it should be taken later by the individual, who must decide whether to have surgery or not. The question then is, and while that time comes, how we educate that person, as a man, woman, and obscure? The ISNA is always in favor of giving the child a genre although this may be modified in adulthood or puberty, independently of their genitalia, as the classification of "neutral" will only delete the individual as a stranger or outsider.

In his article "How can you assign a gender (boy or girl) without surgery?," it explains how this will be based on hormonal and genetic tests, in addition to the experience and opinion of the physician, who can somehow predict which of the two sexes the baby will feel more comfortable. The ISNA is not contrary to the surgery, if the aim is to improve the physical health of the child or help him to meet their physiological functions, for example, make a hole in the penis to urinate when the child does not have one [31].

The case of the intersex community opens another debate that focuses on the fact that being male or female is sometimes independent of the sex organs you possess, as evidenced in the case of transsexuals. Transsexuals are becoming more visible, and some are beginning to choose to not been operated, regardless of their sexual orientation, because the genitals, among other things, serve to give pleasure. But there is still a long way to go before the intersex admission starts.

Although it may seem a big step forward for equality, most intersex organizations reject the "third gender" already adopted by countries like Germany, the USA, Canada, Australia, New Zealand, Nepal, Pakistan, India, or Bangladesh, because they think it can stigmatize children.

We want to highlight one paper published by the philosopher, activist, cultural worker, and magazine publisher Antke Engel, director of the Institute for Queer Theory in Hamburg and Berlin on the *Journal of Queer Studies* entitled "A queer strategy of equivocation. The destabilization of normative heterosexuality and the rigid binary gender order" that give us an idea of its position, seemingly contradictory: to light the fact that this has not yet been even considered a possibility, it can be concluded that the regulations governing sexual ambiguity are not made at all in the interest of those affected but rather in the interest of those who wish to keep intact the present hierarchy of sex, in order to prevent any uncertainty [32].

The critique of identity politics has opened up a skeptical attitude towards normative categories and demands for the coherence and stability of sex, gender and sexuality. At the same time reflections on mechanisms of exclusion within emancipatory movements and politics have also gained attention. Thus, not only (hetero-)sexism and homophobia, but also discriminations pertaining to the rigid binary gender order as well as racist discrimination are issues of importance to queer politics. Considering the critique of identity or minority

politics, I have come to the conclusion that rather than to proliferate or to dissolve categories of sex, gender and sexuality, it is more promising to render them ambiguous: that is what I call a queer strategy of equivocation.

The 2006 international "Consensus statement on management of intersex disorders" [33] recommended moving to a new classification of intersex variations, framed in terms of "disorders of sex development" or DSD. Part of the rationale for this change was to move away from associations with gender and to increase clarity by grounding the classification system in genetics. While the medical community has largely accepted the move, some individuals from intersex activist communities have condemned it. In addition, people both inside and outside the medical community have disagreed about what should be covered by the classification system, in particular whether sex chromosome variations or the released diagnoses of Turner and Klinefelter's syndromes should be included.

A recent work by Griffiths explores initial descriptions of Turner and Klinefelter's syndromes and their subsequent inclusion in the intersex classifications, which were increasingly grounding in scientific understandings of sex chromosomes that emerged in the 1950s. This author questions the current drive to stabilize and "sort out" intersex classifications through a grounding in genetics. Alternative social and historical definitions of intersex—such as those proposed by the intersex activists—have the potential to do more justice to the lived experience of those affected by such classifications and their consequences [34].

In Western nations, there is increasing consensus about ethical approaches to clinical intersex management. At the same time, as Western-trained physicians increasingly encounter intersex patients in other parts of the world, new ethical tensions arise. Which cultural values are fair parameters for gender assignment decision-making, particularly in cultural milieus where there is social and economic inequality between the sexes? How can physicians uphold universal bioethical principles while remaining culturally sensitive? Physicians have a primary commitment to patient beneficence and universal human rights, requiring to promote concordance between the child's assigned gender and his/her likely future gender identity. Ultimately, the potential patient distress posed by gender dysphoria fundamentally outweighs the influence of local cultural factors such as economics, gender, politics, and homophobia [35].

#### 10.4 DSM-5 and Gender Differences

The Fifth Edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-5) [36] assumes that sex and gender differences are related to the causes and expressions of medical conditions that are established for a huge number of diseases, including mental disorders. Revisions to DSM-5 included review of potential differences between men and women in the expression of mental illness. In terms of nomenclature, sex differences are variations attributable to an individual's reproductive organs and XX or XY chromosomal complement. Gender differences are

variations that result from biological sex as well as an individual's self-representation that includes the psychological, behavioral, and social consequences of one's perceived gender. The term gender differences are used in DSM-5 because, more commonly, the differences between men and women are a result of both biological sex and individual self-representation. However, some of the differences are based on only biological sex.

Gender can influence illness in a variety of ways:

- First, it may exclusively determine whether an individual is at risk for a disorder (e.g., as in premenstrual dysphoric disorder).
- Second, gender may moderate the overall risk for development of a disorder as shown by marked gender differences in the prevalence and incidence rates for selected mental disorders.
- Third, gender may influence the likelihood that particular symptoms of a disorder are experienced by an individual. Attention-deficit/hyperactivity disorder is an example of a disorder with differences in presentation that are most commonly experienced by boys or girls. Gender likely has other effects on the experience of a disorder that are indirectly relevant to psychiatric diagnosis. It may be that men or women more readily endorse certain symptoms and that this contributes to differences in service provision.
- Reproductive life cycle events, including estrogen variations, also contribute to
  gender differences in risk and expression of illness. Thus, a specifier for postpartum onset of mania or major depressive episode denotes a time frame wherein
  women may be at increased risk for the onset of an illness episode. In the case of
  sleep and energy, alterations are often normative postpartum and thus may have
  lower diagnostic reliability in postpartum women.

The DSM-5 Manual is configured to include information on gender at multiple levels. If there are gender-specific symptoms, they have been added to the diagnostic criteria. A gender-related specifier, such as perinatal onset of a mood episode, provides additional information on gender and diagnosis. Finally, other issues that are pertinent to diagnostic and gender considerations can be found in the section "gender-related diagnostic issues" [36].

And that's all folks! That's all the reflection and analysis that DSM-5 authors have contributed to the gender differences related to mental disorders. It's frustrating, even avoiding to mention the binary conception of sexuality and the complete misunderstanding of gender itself. For interested people, we recommend the reading of Daley A. and Mulé J. points about a critical queer response to DSM-5 [37].

As we have mentioned above, sexual studies of the general populations are strikingly scarce, and at the same time, there are again scant publications on sexuality and sexual behavior in psychiatric populations. It's real time to go further in this strikingly area related to sex and gender in normal and clinical populations. It's a matter of science but also of justice and equity.

# 10.5 Sexual Dysfunctions

Sexual dysfunctions represent a group of heterogeneous disorders and include an array of processes, which affect the general population, generating a high impact at the life quality and interpersonal relationship levels.

They are usually underdiagnosed and undertreated, and in them, etiopathological aspects of biological, psychosocial, and interpersonal nature overlap. It is important to determine any underlying disorder or incurring psychosocial factors in the evaluation of a patient who has sexual problems.

To such an extent, it has been stated that the sexual dysfunction might in fact be a symptom or a side effect and not a primary pathology [2]. In all cases, in addition, it is inescapable to carry out a surveillance of possible organic causes (highly frequent in the case of the man's erectile dysfunction), as well as toxic and pharmacological causes or other psychiatric disorders, preeminently of affective nature. In most cases, sexual difficulties are multiply determined, and there are several factors that contribute to the development of sexual dysfunction.

All of them share a common trait: the anxiety they cause to those who suffers them and/or to their partners. This anxiety may trigger the dysfunction or act as a factor that makes it last longer once it has set in [38].

The epidemiology shows us how the regular medical practice is not in accordance with the facts regarding disorders associated with sexuality, and the underrated perception of this psychopathological characteristic that is so frequently neglected.

Historically, sexual response has been understood as a linear process in various stages, initially defined by Masters and Johnson (excitement-arousal-orgasm-resolution), common to men and women [39].

Kaplan et al. subsequently modified the previous model to include the concept of desire, which reflects the psychological, emotional, and cognitive components of sexual response [30]. This modified linear model is comprised of three phases: desire, excitement, and orgasm [2].

Recently, Basson et al. [40] defined the cyclical biopsychosocial model of female sexual response in which there is feedback among physical, emotional, and cognitive aspects. According to this model, in women, there may be a desire that causes the seek for sexual activity (spontaneous desire), or there may be a neutral sexual position, a predisposition to perform a sexual activity that, if the stimulation is sufficient and suitable, produces the transition from neutrality to excitement and desire (reactive desire). If the result is positive, emotionally and physically, sexual motivation increases. If it is negative, the cycle is broken, and sexual motivation with the partner does not increase [36]. Gratification is achieved by satisfaction and pleasure (with or without orgasm) and with other subjective aspects that are not strictly sexual and can have much importance, such as communication with the partner, emotional intimacy, expression of affection, sharing physical pleasure, pleasing the partner, self-esteem, relaxation, or well-being.

As regards nosology, in the first version of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM) of the American Psychiatric Association, only two

sexual dysfunctions are set out: frigidity (with regard to women) and impotence (to men) [40, 41].

The category of psychosexual disorders was included for the first time in the third edition of the Manual (DSM-III) in 1980, where they are defined as "inhibitions in sexual desire or the psycho-physiological changes that characterize the sexual response cycle" [42]. The diagnostic of "inhibited sexual desire" includes inhibitions within any of the sexual stages indicated by Masters and Johnson in 1966: excitement-arousal-orgasm-resolution [39].

In 1987 the DSM-III-R considers that "Inhibited Sexual Desire" is subdivided in two categories "Hypoactive Sexual Desire Disorder" (lack of interest in sex) and "Sexual Aversion Disorder" (phobic aversion to sex). Since then, a progress is made with regard to both the diagnostic classifications and the definition of sexual dysfunctions [43].

The DSM-IV (published in 1994, followed by its revision or DSM-IV TR in year 2000) gathered four categories of sexual dysfunction, following again the linear model of sexual response by Masters and Johnson: "disorders of sexual desire, arousal, and orgasm, and disorder of sexual pain" [44].

The Fifth Edition of this Manual (DSM-5) incorporates several changes in the diagnostic criteria [36]. New researches discredit the validity of the Master's and Jonhson's model, later development by Kaplan, given that both, the strict distinction between the excitement phases and the linear sexual response model, were inadequate to explain sexual behavior.

The most remarkable changes that have been carried out in the DSM-5's chapter of sexual dysfunction are:

- Addition of gender-specific sexual dysfunction: three sections for women and four in the case of men, as opposed to five and six, respectively, in the DSM-IV TR.
- Removing and merging of some previous disorders: Female hypoactive sexual desire and female sexual excitement disorder have been merged into a single disorder called female sexual interest/arousal disorder, based on data suggesting that the sexual response is not always a linear and uniform process and that the differentiation between certain stages (particularly desire and excitement) can be artificial [45, 46]. Another peculiarity to be taken into account is that the sexual excitement includes both a subjective and a physiological or genital arousal [36]. These two are often different from each other, and studies have shown that there is a poor correlation between subjective and physiological arousal. Thus, healthy women with sexual arousal disorder have shown normal genital vessel congestion as a response to erotic stimuli despite their protests of experiencing a low subjective arousal [46]. According to the circular model of Basson et al., desire and excitement are difficult to separate, and normal desire includes a reactive component [47].
- Genito-pelvic pain/penetration disorder has been added to DSM-5 which represents a merged of dyspareunia and vaginismus, given that they were highly comorbid and difficult to differentiate.

- On the other hand, male dyspareunia and male sexual pain, present in DSM-IV TR, are not included in the DSM-5, because of its low appearance rate [48]. The sexual aversion disorder has been eliminated due to its infrequent use and lack of research support, sharing a great number of features with phobias or other anxiety disorders [49, 50] (Tables 10.2 and 10.3).
- Time pattern: a 6-month minimum duration of the disorder is required. This change avoids overdiagnosis of transitory difficulties.
- Frequency pattern: requirement for any given disorder to be present in the 75–100% range of the occasions to be able to support a specific sexual dysfunction diagnostic, with the notable exception of those disorders induced by substance or medication.

**Table 10.2** Diagnostic changes in DSM-5

| Female sexual dysfunctions  | Male sexual dysfunctions               |
|---|--|
| Female sexual interest/arousal disorder                               | Male hypoactive sexual desire disorder |
| Female orgasmic disorder  | Erectile disorder                      |
| Genito-pelvic pain/penetration disorder Premature (early) ejaculation |  |
|   | Delayed ejaculation                    |

**Table 10.3** Diagnostic changes proposed by the DSM-5 regarding sexual dysfunctions [51]

| DSM-IV-TR diagnoses               | Changes in DSM-5                                     |  |
|-----------------------------------|--|--|
| Female dysfunctions               |  |  |
| Female hypoactive desire disorder | Merged into: Female sexual interest/arousal disorder |  |
| Female arousal disorder           |  |  |
| Female orgasmic disorder          | Unchanged  |  |
| Dyspareunia                       | Merged into: Genito-pelvic pain/penetration          |  |
| Vaginismus                        | disorder   |  |
| Male dysfunctions                 |  |  |
| Male erectile disorder            | Changed to Erectile disorder                         |  |
| Hypoactive sexual desire disorder | Changed to Male hypoactive sexual desire disorder    |  |
| Premature (early) ejaculation     | Unchanged  |  |
| Male orgasmic disorder            | Changed to Delayed ejaculation                       |  |
| Male dyspareunia                  | Not Listed   |  |
| Male sexual pain                  |  |  |
| Other dysfunctions                |  |  |
| Sexual aversion disorder          | Deleted  |  |
| Sexual dysfunction due to a       |  |  |
| general medical condition         |  |  |
| Substance/medication-induced      | Unchanged  |  |
| sexual dysfunction                |  |  |
| Sexual dysfunction NOS            | Replaced by Other specified sexual dysfunctions and  |  |
|                                   | Unspecified sexual dysfunction                       |  |

Note: Individual changes to DSM nomenclature and criteria are in bold DSM Diagnostic and Statistical Manual of Mental Disorder, IV-TR 4th Edition-Text Revision, NOS not otherwise specified

- Repercussion: the condition of provoking interpersonal difficulties as was specified in the DSM-IV TR has been modified into that of resulting in a significant upset.
- New excluded criteria: The disorder should not be explained by a nonsexual mental disorder and/or must result from serious difficulties in the relationship or other significant stressors.
- To the previously existing specification of "for life" (the disorder has existed since the individual reached sexual maturity) versus "acquired disorder" (the disorder began after a period of relatively normal sexual activity) and "generalized" (in all sexual encounters) versus "situational" (only in some situations), a new important dimension scale has been added, being it now possible to catalogue as mild, moderate, and serious.
- A new group of criteria named "associated characteristics" is included, where we can find (1) partner factors, such as sexual or health problem; (2) relationship factors, such as lack of communication or discrepancies regarding sexual stimuli; (3) individual vulnerability factors (such as poor self-image, history of sexual abuse), psychiatric comorbidity (depression, anxiety), or environmental stressors (loss of job); (4) cultural and religious factors, such as prohibition regarding sexual intercourse and pleasure, and different attitudes toward sexuality; and (5) medical factors for the prognosis, course, or treatment [30].
- Introduction of a "list of criteria," appearing an essential specific diagnostic criteria "A," which demand a certain number of sub-criteria for its diagnosis.

# 10.5.1 Female Sexual Dysfunction

The prevalence of sexual dysfunctions in women has been estimated around 40% of population in several studies [38, 52].

The most commonly reported sexual dysfunctions for women are interest and arousal dysfunctions, according to the National Health and Social Life Survey Study around 31–64%, followed by the inability to experience an orgasm average 35%. Less common are genito-pelvic pain/penetration disorders with a prevalence less than 25% [53, 54]. In addition, there is a large proportion of women who experience multiple sexual dysfunctions [52].

According to the National Health and Social Life Survey, more women (43%) than men (31%) gave information about their sexual problems. Among those women who gave information about any kind of sexual difficulty, problems related to sexual desire were the most common (average 64%), followed by difficulties with orgasm (average 35%), difficulties with arousal (average 31%), and sexual pain (average 26%) [53].

In women, the most influential factors of sexual dysfunction are psychological problems such as depression or anxiety, conflict within the relationship, fatigue, stress, lack of privacy, physical or sexual abuse, medications, or physical problems such as endometriosis or genitourinary syndrome of menopause. Moreover, there have been

reported that women's sexual function is more impacted by BMI than men's. Overweight and obese women are less satisfied with their sexual frequency and rate sexual life as less important; these differences were not found among men [55].

Significant differences have not been reported about the risk for sexual dysfunction between women who have sex with women as in those who have sex with men [52].

Another factor to be considered is age. Most studies offer evidence that sexual activities as well as the sexual function decrease with age. This decline has been seen to usually start from the 30s to 40s age bracket. In addition, many women describe a decline specifically associated with menopause that consists of atrophy of urogenital tissue, decreases in vaginal lubrication and vassal congestion, and decline in the erotic sensitivity of nipple, clitoral, and bulbar tissue. These changes added to the decrease of testosterone production cause declining in libido, sexual responsiveness, comfort level, and sexual frequency.

Gender differences in sexual dysfunctions are more present with advanced age, especially in the 75- to 85-year-old groups; in these population groups, 39% of men are sexually active versus 17% of women [56]. Only a small percentage of women in longitudinal studies (5–15%) informed of an increase in sexual functions and activities with age. Nevertheless, it must be clarified that a decline in sexual functions and activities doesn't automatically imply the presence of a dysfunction or a sexual disorder [56, 57].

It is worth noting that women vary significantly when they are assessed about the importance that they grant to the practice of sexual intercourse, as well as their sexual practice of preference, their views on the optimal sexual frequency, and the stimulation amount necessary to obtain adequate sexual arousal and satisfaction [58]. It isn't hard to imagine that the multidimensional gender variable can explain such a wide variability.

#### • Female Sexual Interest/Arousal Disorder

It is a clinical condition characterized by absence or reduction of interest in sexual activity, sexual thoughts or fantasies, desire to have or to initiate sexual activity, pleasure during sexual encounters, response to any sexual/erotic cues, and genital or non-genital sensations during sexual activity. The subjective sensation of excitation correlates sparingly with genital lubrication, so complaints of lack of pleasure are sufficient to establish the diagnosis even in the presence of lubrication and vaginal congestion [30].

Despite DSM-5 recent publication, the current nosography has not forestalled all criticism, and different authors such as Sarin [59] argue that the new criteria exclude an important number of patients with desire and excitement diminution. Moreover, Clayton et al. [60] support the same argument and state that the majority of women who fulfilled DSM-IV TR criteria for the sexual excitement disorder will not fulfill any of the A criteria proposed for the female sexual interest/arousal disorder in DSM-5 [36].

The prevalence of this disorder is still unknown due to the new DSM-5 diagnostic criteria. Previous studies done with DSM-IV TR criteria showed that low

desire was the most common sexual problem in women, reported by 30–40% of women [26].

According to the study Prevalence of Female Sexual Problems Associated with Distress and Determinants of Treatment Seeking (PRESIDE), reduced desire associated with distress is reported by approximately 9% of women aged 18–44 years, 12% of women aged 45–64 years, and 7.4% of women aged over 65 years. Low arousal was reported by 26% of women [42].

The female sexual/arousal disorder appears, from an epidemiologic point of view, more frequently in women, in their adult life and after a period of normal sexual activity, coinciding with extrinsic stressing factors or with periods of psychological unease sometimes influenced by various psychiatric disorders (major depressive disorder or anxiety disorder) and/or organic disorders [61].

This disorder shows a complex physiopathology. In that regard, it is important to consider a biopsychosocial approach; consequently several risk factors should be detected such as organic disorders (hormonal disorders, inflammatory diseases, urologic conditions, substance abuse, etc.), aging, depression or anxiety, abuse or sexual violence, low self-esteem, restrictive cultural and religious ideas, intellectual and educational level, factors linked to the moment in the menstrual cycle, etc. Relationship problems are particularly relevant in the onset of this disorder [30].

It is not uncommon for the decrease of the sexual desire of one of the members of the couple to be in fact a response to an increase in the desire and demand of the other member, or either that the desire decrease alternates and is transitory for both members of the couple. Moreover, there appears to be a strong influence of genetic factors on vulnerability to sexual problems in women [52].

Otto Fenichel [62], from a psychoanalytical perspective (integrating gender paradigms), interprets the female frigidity as the existence of an anguish before the damage arising from the complete satisfaction of the sexual interests, anguish that culminates in different ways:

Women that through the educational constraints of class, status and personal beliefs suffer a pejorative internalization of the vital aspects related to sexuality (mostly female sexuality), which results in a true horror at the penis, filth, violence and aggressiveness of the male, all of them symbolic representatives of the sexual act

Women that show a rejection more or less conscious toward their sexual partner

Women whose frigidity reveals problems inherent to the lack of resolution of the Oedipal conflict or either the pre-Oedipal fixation to the mother and rejection of the masculine role

Women that through their frigidity find a masochistic gratification in the shape of passivity or either use it as a defense against the intense feelings of guilt arisen from a sexual satisfaction that is considered despicable at an unconscious level and culturally constrained (concept of *habitus* coined by Pierre Bourdieu) [63]

Nevertheless, remember what we pointed before in this chapter: the utmost significance that used to be attributed to the "Oedipal complex" isn't ascribed to it anymore, and it constitutes now nothing but a cultural construction of mythical proportions. It must be noted that from certain sectors of psychoanalysis, it is also

highlighted that the sense of the self and of the other evolve through the fact that separated minds are able to share feelings and intentions in a process of mutual recognition. This recognition can be established through a dyad mother/son or father/daughter or in any asymmetrical relationship, as long as the needs of the other don't get falsified through constructions or representations which justify and disguise domination.

The androcentrism of the Psychoanalytical Theory concerning sexual differences stems from that point, of the double absence and invisibility of that which the father does in the scenario where the girl and the mother end finding their place and developing their subjectivity [22].

In fact, the dominant factor in humans, which determines the intensity of sexual desire, leaving aside the aforementioned hormonal and immunological factors, is of an affective-cognitive kind and clearly constrained by psychosocial factors. It is worth noting at this point how the affective memory is related to the limbic system, which is the nervous substrate of affection and of the rest of the appetitive functions [1].

### · Female Orgasmic Disorder

Orgasm constitutes the climax or fulfillment of sexual pleasure, comes to last an average of between 3 and 25 s (with a great inter individual variability), and is accompanied by a rhythmic contraction of the perineal and anal muscles, of the pelvic reproductive organs, and by a massive relief of the sexual tension, followed by a muscular relaxation and by a subjective feeling of psychological and physical well-being. It is followed by a certain decrease in the consciousness level and can be accompanied by a drowsiness, generally superficial.

In women, the orgasm is usually achieved through the simultaneous stimulation of the clitoris and of the vaginal walls, and it is accompanied by an involuntary contraction of the lower third of the vagina as well as of the uterus in its entirety. After the orgasm, men experience a refractory period of between some minutes and several hours, during which they are not able to experience a new orgasm. This period is not usually experienced by women. It is worth noting that overall sexual satisfaction does not correlate with orgasmic experience due to many women report optimal sexual satisfaction despite the absence of orgasm.

Female orgasmic disorder, historically named anorgasmia or inhibited female orgasm, is defined as marked delay in, marked infrequently of, or absence of orgasm or markedly reduced intensity of orgasmic sensations [36].

It could be accompanied by physical discomfort (somatic equivalents), in the form of pelvic pains, itching, vaginal discharge, mammary tension, and dyspareunia.

The prevalence is broad, between 10 and 40%, and it is influenced by several factors such as age, culture, educational and religious sort, or subjective feelings of discomfort perceived by each woman [52]. These women may have communication difficulties in sexual matters and usually present sexual interest/arousal disorder associated.

Lifelong female orgasmic disorder is more frequent in women without a partner, and its prevalence diminishes with age, being more frequent during adolescence and youth, probably due to the decrease of psychological inhibition at an older age, less forced to adhere to social conventions, a greater sexual experience, or a combination of them all [30].

Acquired female orgasmic disorder is a frequent disorder in clinical populations and obeys a variety of causes. Among them stand out certain disorders of a psychological kind such as the disproportionate fear of a pregnancy, the rejection of a sexual partner or of any potential partner, the previous negative conditioning toward sex accompanied by an excessive fear of sexual intercourse, and the fear of a control loss of the impulses (represented by the orgasm) that may symbolize a dyscontrol of the aggressive or destructive kind toward the partner. It is generally accompanied by difficulties in the excitement stage, and in occasion by anankastic personality traits [30, 64].

Genito-Pelvic Pain/Penetration Disorder

This disorder consists in difficulties with vaginal penetration, marked vulvovaginal, or pelvic pain during vaginal intercourse or penetration attempts, marked fear or anxiety about pain in anticipation of, during, or as a result of vaginal penetration, or marked tensing or tightening of the pelvic floor muscles during attempted vaginal penetration [36]. These clinical pictures can be the origin of an active avoidance of sexual relationships in the future, with the subsequent damage to the couple relationship and the psychological distress that it entails.

In the past, these disorders that cause pain were diagnosed as dyspareunia or vaginismus. Dyspareunia is a recurrent or persistent genital pain that occurs before, during, or after sex. It is related (and often coincides) with vaginismus, which consists of the involuntary, episodic, or persisting contraction of the perineal muscles in the lower third of the vagina at the introduction of different objects such as the penis, specula, fingers, sexual toys, and even tampons [30]. The prevalence of this sexual dysfunction is approximately 15%, and it is frequently associated with other sexual dysfunctions, particularly reduced sexual

This disorder is more frequent in young women of a high educational level and belonging to high socioeconomic groups, with a negative attitude regarding sex either because of previous traumatic experiences, history of sexual abuse, or social and educational constraints. Nevertheless, the association of sexual or physical abuse with this dysfunction is a matter of controversy in the current literature [36, 52]. Other risk factors are vaginal infections, menopause, and postpartum period.

desire and interest (female sexual interest/arousal disorder) [36].

• There is relatively recent research on chronic urologic pelvic pain syndrome in men that suggests men may suffer some similar problems. However, there is not enough clinical and scientific evidence to justify the existence of this diagnosis in men, so it would be diagnosed as another specific or unspecified sexual dysfunction.

This kind of disorders according to the psychoanalytic theory is framed in the "conversion hysteria." Painful coitus can be a consequence of the tension and

anxiety triggered by the sexual act in the individual, which provoke mostly in women the involuntary contraction of the perineal and vaginal muscles tampering its performance (Vaginism), even though this is not its only cause.

We would like to point out how psychoanalysis systematically tends to monopolize the discourse of truth on female sexuality, a discourse that narrates the truth of the logic of that same truth, precisely, that the femininity only takes place within models and laws which have been enacted by masculine subjects. This entails that there are not two actual sexes, but just one. One bare practice and representation of the sexual, with its own story, its needs, its reverses, its lacks, and its negative side or sides, whose support is still being the female sex.

The thesis of the psychosexual development maintained by Freud since 1908 implies that girls aged 3–5 years discover that they do not have a penis and conclude that they lack something, which they have been castrated. That is the concept of "penis envy" which, together with that of "fear of castration" of the boys, operates not only at an individual level but also in the collective consciousness.

This fact has had negative effects, depriving women of a self-determined sexuality, dispossessing them of their creative ability. By the end of the nineteenth century, the terms "vulva" and "labia" do not appear in the Webster Dictionary (derived from An American Dictionary of the English Language, de Noah Webster, 1928) to refer to the female genitalia, staying confined to the term "vagina." Well, the problem is that Freud went even further, stating that the greatest desire of every girl, and later of every woman, would be the desire to possess a phallus ("penis envy") and that desire could only be replaced by the desire to conceive a baby.

Irigaray [25] relates it thus: the woman would only complete herself through maternity, in bringing to the world a child who is a "penis substitute" and, if she is completely lucky, a child who owns a penis of his own. The perfect fulfillment of becoming a woman would consist, according to Freud, in reproducing the male sex neglecting one's own.

Together with the imaginary nonexistence of the female genitalia are in fact addressed other nonexistences. Jacques Lacan, for example, wrote something like this: a woman only exists if it's excluded of the nature of things, which is the nature of words, and it must be said that if there is something that women themselves complain about enough for the time being, it's just that they do not know what they are saying, and that's the whole difference between them and me [15]. The rivalry between both sexes in psychoanalysis has been formulated, preeminently, in genital terms, confusing form with content, genitalia with the wide scope of human actions that masculinity symbolizes. While it pretends to provide with a scientific explanation of the sexual behavior, psychoanalysis limits itself to the reinforcement of the myth. Women and men inserted in that cultural and allegedly scientific discourse will keep on picturing all creativity and empowerment in a woman (in nontraditionally female areas) as some kind of usurpation or transgression: phallic women and men threatened with mutilation. The disguising and reinforcing of the hierarchic order of sexes through an insisting

recurrence to the differences between them will continue to be made, reducing the complexity of the conflicts which are inherent to them, alterity and human inequality [15].

### 10.5.2 Male Sexual Dysfunction

Different studies show a high prevalence of sexual dysfunction symptoms in men, reaching 64.3% in those older than 40 [65].

A recent study on Australian male population aged between 20 and 64 years who have been sexually active in the last year confirms that 34% of men refer to at least one sexual difficulty [66].

### Male Hypoactive Sexual Desire Disorder

The basic diagnostic criteria in this disorder are the decrease or absent of sexual/ erotic fantasies or thoughts as well as the desire for sexual activity. Sometimes, it is associated with erectile or ejaculation problems.

The prevalence of this disorder is unknown, but some studies report that this dysfunction is diagnosis in 1% between 18- and 44-year-old men, increasing with age [67].

Several risk factors have been identified such as substance abuse, diabetes mellitus, hormonal dysfunction, neurological diseases, depression or anxiety, fatigue, relationship and interpersonal problems, self-directed homophobia in gay men, lack of adequate sex education, trauma resulting from early life experiences, and cultural and social factors [67].

### Erectile Disorder

In erectile disorder, historically named impotence, the male can experience a difficulty or even an impossibility to obtain or maintain a penis erection during sexual activity or a marked decrease in erectile rigidity.

It is the most common sexual problem in men, provided that it happens occasionally, as an episode, and doesn't create difficulties when it comes to establish future interpersonal relationships. It is also relatively frequent in elders a further delay in the obtaining of the erection and the orgasm (responding to a physiological cause typical of the age) or in those cases in which takes place an inadequate sexual stimulation in terms of the stimulation object, intensity, and/or length. When the problem is more relevant and lasting, we will be talking of an actual psychogenic impotence.

Only 2% of men younger than age 40–50 years report frequent problems with erections, whereas 40–50% of men older than 60–70 years may have significant problems [67].

Risk factors associated with erectile disorder are age, cardiovascular diseases, obesity, diabetes mellitus, hypercholesterolemia, smoking, sedentary lifestyle, depression and other mental illnesses, psychological conflicts (low self-esteem, low self-confidence, or decreased sense of masculinity), and socioeconomic constraints [68].

New studies have found that frequency of sexual activity appears to predict the development of erectile dysfunction, so that men who have less sexual activity experience more risk of erectile problems [69].

However, it is worth underlining that there is a medical basis for the disorder of between 20 and 50% of the males who suffer erectile disorder. The pathologies associated with a higher extent are vascular, endocrine, neurological diseases and Peyronie syndrome, without overlooking side effects due to the use of pharmaceuticals (medication could explain until 25% of cases) [70]. In fact, almost 2/3 of the most commonly prescribed medication list erectile dysfunction as a side effect [67].

Usually, erectile dysfunction caused by organic factors is generalized and gradual in onset. On the other hand, erectile problems due to psychological etiology are, in general, situational and acute in onset after a stressful life event. Dysfunction in men less than 40 years also suggests psychological difficulty [36, 67].

Spanish psychiatrist Castilla del Pino [71] links sexual impotence to various psychogenic causes, such as the response of frustration to a previous and failed sexual experience, which provokes in the individual a depreciation of his self, of his self-esteem, and of his erotic narcissism and which triggers an inhibition about any other future sexual experience. Or either he links it to feelings of guilt regarding a relationship considered morally reprehensible itself or due to the choice of a particular sexual partner. When the erection disappears at the moment the penetration is attempted, we are talking about a vestibular impotence. In this case, as long as the erotic foreplay lasts, the erection is maintained, disappearing the moment the partner adopts a "passive" role and allows penetration, moment at which anxiety appears. Impotence can also be interpreted as the result of a homosexuality in disguise.

For this author [71], it is interesting the frequency with which it is seen at the clinical setting the impotent subjects maintaining stable relationships with partner that don't add too much "conflictuality" to the dysfunctional fact at stake and that even sometimes seem to enjoy and benefit from it. He proposes, as possible explanations of this enabling behavior from the partner, the adoption on his part of a role similar to that of the mother or the presence in the partner himself of a diminution of sexual desire.

The presence of a satisfactory erection during masturbation or during REM sleep stage directs us toward a psychogenic origin of the clinical picture. On the other hand, multiple primary psychiatric disorders can be accompanied by difficulties in the male erection, among them the major depressive disorder, schizophrenia, or the obsessive-compulsive disorder [67], all of which, however, in the DSM-5 entail an exclusion chapter [36].

### Delayed Ejaculation

In the case of the male, the orgasm is announced by the subjective feeling of an immediate and inevitable ejaculation, followed by the rhythmic contraction of the prostate, the seminal vesicles, and urethra, culminating with the emission of semen.

This sexual disorder is characterized by a marked delay in ejaculation or inability to achieve ejaculation, despite the adequate sexual stimulation and the desire to ejaculate. The problem rarely occurs during masturbation, being more frequent when sex is practiced with a partner [30]. This orgasmic disorder is less frequent in males than in women [67], but the prevalence is not clear due to the absence of a precise definition for this syndrome. Only 75% of men refer to ejaculate always during sexual activity, and less than 1% refer problem to achieve ejaculation for more than 6 months. This picture is much less frequent than impotence or premature ejaculation, and it should be differentiated from orgasmic anhedonia (ejaculation without orgasm) and retrograde ejaculation (ejaculation into the bladder). The prevalence remains constant until around age 50 years, when the incidence begins to increase. It could be related to the loss of fast conduction peripheral sensory nerves and the decrease in sex steroids [36].

In the last decade, there has been a rise in the incidence of this disorder, which has been attributed to the increase in the use of antidepressants and the high use of pornography websites. Recent studies carried out on male adolescents who used to consult frequently these websites before a sexual interaction have found that they will not develop neuronal synapses that allow them to respond to the couple's interactions with the sufficient pleasure to reach the climax [67].

It is important to rule out primary organic causes: interruption of the nerve supply to the genitals due to surgical procedures or traumatic injuries, neurodegenerative diseases such as multiple sclerosis and diabetic and alcoholic neuropathy, drug abuse, or hormonal problems [36].

Primary anorgasmia in males usually reveals serious pathological dysfunctions in those who suffer from it, including among others obsessive ruminations (for instance, of guilt, or filth and contamination) associated or not with rituals of atonement, rigid and restrictive familiar and social environments, and difficulties in interpersonal relationships, and in some cases it has been described the concurrence of an attention-deficit disorder that may condition the difficulty to achieve a sufficient excitement to trigger the sexual climax [26].

There are two antithetic points of view to explain this dysfunction: inhibition and models of desire deficit.

In the inhibition model, behaviorists suppose that the male does not receive enough stimulation to reach his orgasmic threshold. The advocates of a psychodynamic model who support that same idea suppose that the symptoms are a conscious (or unconscious) expression of the male aggression, who deprives of or holds away from his partner something this covets.

In the desire deficit model, Apfelbaum postulates that the delayed ejaculation is a desire dysfunction that is mistaken for a performance disorder [72].

When it comes to secondary anorgasmia, it almost always reveals unresolved interpersonal and couple problems of which the subject is more or less aware, obsessive-compulsive disorder or a clear hostility toward potential sexual partners.

• Premature (Early) Ejaculation

Among males, the main cause for sexual dysfunction that appears in their questions to the medical practitioner is premature ejaculation [30], which consists in persistent or recurrent pattern in which the ejaculation produced during the sexual activity occurs approximately within 1 min after vaginal penetration and before the individual would wish to. The DSM-5, in its diagnostic criteria, refers only to the "vaginal penetration," although it is completely possible that the disorder occurs in homosexual men who do not practice it. If the ejaculation occurs within 30–60 s following penetration, the disorder will be considered mild. If it occurs between 15 and 30 s after penetration will be moderate, and if it is in the first 15 s, the disorder will be severe [36].

It is estimated that up to 30% of the world male population report concern about how rapidly they ejaculate. With DSM-5 new criteria, only 1% of men would be diagnosed with this disorder, but this prevalence varies among countries and different ethnic groups due to cultural differences and different attitudes and believes toward sex [67]. Among its etiological factors, a polymorphism of the dopamine and serotonin transporter genes has been found in patients with permanent premature ejaculation. In contrast, acquired premature ejaculation has been associated with factors of a urological, endocrine, neurological, and psychological nature [73, 74].

This clinical picture is more frequent among young males and is fostered by factors of a psychological kind, such as anticipatory anxiety based on the fear of not being able to sexually satisfy the partner, or adverse conditions of a cultural and educational kind. It is more common among men with university education than among those with a lower educational level. It is believed that the problem is related to their concern for the satisfaction of the partner, but the exact cause is unknown. It also has been a certain biological predisposition in the form of a brief latency in the ejaculation in those people under intense sexual stimuli [75].

## 10.5.3 Other Concepts Related to Human Sexuality

### Sexual Aversion

This clinical picture is the most extreme manifestation of sexual interest/arousal disorder in the shape of a rejection to everything related to sexual practices, with an active and lasting avoidance of the performing of sexual intercourse.

Gender, age, and neurobiology can play an important role in the etiopathogenesis of this complex disorder [76].

The association of symptoms frequently observed in the anxiety disorders and in the mood disorders forces us to effect an exhaustive differential diagnostic of all of them.

### Hyper Erotism

At the polar opposite of the decrease or rejection of the sexual desire, we meet hyper erotism or excess in the libidinal desire or sexual impulse. This picture is accompanied by a predominance of cognitions and mental images full of sexual contents, generic or specifically crystallized around certain people, absolutely independent and detached from any coital and reproductive function.

This phenomenon is more akin to young individuals who can find in their excess of sexual desire a source of conflicts and concerns given its undaptative nature. And we have also founded new bibliography broadening the hyper erotism spectrum as a multidimensional concept [77].

### • Female Multiple Orgasms

As in literature there is no record of the clinical presence of a premature female orgasm (the equivalent to premature ejaculation in males), it has been described cases of spontaneous multiple orgasms, without sexual stimulation, in women suffering from temporal lobe epilepsy, as well as cases of spontaneous multiple orgasms associated with different physiological functions such as yawning or laughing in women under different pharmacological antidepressant treatments (fluoxetine, mirtazapine, trazodone, and clomipramine, among others) [30]. On the other hand, and taking into account that the presence in women of a refractory period following an orgasm is exceptional, if during the sexual intercourse the stimulation performed by the partner is maintained, it is common for the female to experience several consecutive orgasms in proportion to the time length of the stimulation. The same goes for the case in which the stimulation takes place during masturbatory practices [78].

• Postcoital Dysphoria or Postorgasmic Illness Syndrome (POIS)

The term postcoital dysphoria refers to a particular psychophysical state subsequent to the performance of the coitus, more frequently in males, that can last from some minutes to several hours and includes a mixture of asthenia or superimposed fatigue and a clinical picture of anxiety, somatic anguish, irritability, and affective lability which vary in terms of severity. It's possible to reach an state of true psychomotor agitation and the development of phobic symptoms and of avoidance behaviors related to the sexual act. Nevertheless, most frequently, the clinical picture is mild and total the recovery from it.

Postorgasmic illness syndrome (POIS) is a rare but debilitating cluster of poste-jaculatory symptoms affecting men. It is a chronic disorder manifesting as a constellation of flu-like and allergic symptoms within seconds, minutes, or hours after ejaculation. POIS can be followed by mental sequelae such as diminished concentration and irritability. POIS negatively affects the life of patients by limiting sexual encounters, dampening romantic prospects, creating internal struggles to avoid eroticism, and affecting patients' schedules. First described in 2002, the prevalence and incidence of POIS are still unknown owing to a paucity of studies but are likely underreported. There are approximately 50 cases of POIS in the literature. Despite the debilitating effects of POIS, the pathophysiology of POIS is still not well elucidated.

There are five preliminary diagnostic criteria for diagnosing this condition [36]. POIS is categorized as primary or secondary. The autoimmune-allergy hypothesis is the most accepted hypothesis explaining the pathogenesis of POIS. A competing hypothesis involves a disorder involving endogenous m-opioid receptors. Another hypothesis invokes impairment of the cytokine and neuroendocrine responses. There are no known treatment modalities for POIS; patients have been symptomatically treated with antihistamines, selective serotonin reuptake

inhibitors, and benzodiazepines. A trial of hyposensitization therapy with autologous semen was successful. A trial of nonsteroidal anti-inflammatory medication helped one patient described in a single case report but failed to successfully treat other patients [79].

### · Postcoital Headache

With regard to the postcoital headache, it is characterized by the appearance of a headache immediately after coitus, which can last several hours, and generally responds badly to conventional analgesic treatments.

The classic presentation of this disease is in the form of a pulsating headache, in the frontal and occipital regions, being apparently more prevalent in females [52]. Its ultimate cause is still unknown, having been found to involve vascular, muscular (tensional headache), and psychogenic factors. Coitus can also trigger migraine attacks in those who have a predisposition to them [80].

### Masturbation

Masturbation or onanism is a universal sexual practice of genital self-stimulation that usually consists of more or less intense and rhythmic massage of the clitoris in the female case, and of more vigorous one of the penis in the case of males (in both cases stimulation can reach other erogenous zones), in which practically all men incur, as well as 80% of women at some point in their lives [30].

This practice has been frequently censored and forbidden by different societies and more or less developed cultures, on the basis of restrictive medical, moral, and religious stances, going so far as to consider it a causal factor of severe physical and psychiatric illnesses. However, none of these assumptions has been substantiated.

Masturbation is common during childhood, within a self-exploratory behavior that also may seek pleasure which starts between the second and third year of age. After Freud's work, supposed rediscover and demystify the relevance of the sexual life of children, it started to be understood as a normal form of sexuality, as the final step of self-eroticism toward the search of an outside object with erotic connotations [71].

In later times, coinciding with an increase in the socialization of children, masturbatory behaviors play a key role and enable the interest and curiosity about one's own genitals and those of the other, a basic fact in the maturation of the sexual identity and in the discovery of the opposite sex, being frequent in this age the exhibitionist behaviors both in boys and girls, which thus increase the feeling of pleasure as long as an unfortunate and disproportionate restrictive and/or punitive attitude from the part of parents and caretakers does not foster a disproportionate sense of guilt in them.

In puberty, and later during the adolescence, the onanistic activity increases due to the conjunction of the hormone "apocalypse" that entails the development of the secondary sexual characters, the increase in sexual desire, as well as the conflict typical of the teenager, which in one hand strives for the strengthening of his sexual identity through the achievement of the coitus and on the other hand must comply with social and moral demands which impose on him a control of his sexual impulses.

It should be noted that during the adolescence, masturbation is accompanied by coital fantasies that do not take place during childhood. These fantasies mean a crucial step forward in the development of sexual identity, as well as in the positive reinforcement of the egosyntonic adult sexual role. In this sense, non-objectal masturbation can turn to be a psychopathological manifestation revealing an underlying psychical disorder.

Castilla del Pino considers the masturbatory activity at these ages to accomplish two fundamental tasks [71]:

In one hand the concretion of sexual excitations in the genital sphere.

On the other hand, fantasies by which masturbation is accompanied target almost invariably real sexual objects, so we are talking about the first (fantasized) rehearsal of an aloerotic sexuality.

• Masturbatory activity is usually maintained until the adult life, when it comes to be substituted by coitus, even though this substitution is not absolute and masturbation usually persists in adults, sometimes as another component of the general activity of the couple in the sexual encounter, some other times with the adaptive function of substituting in a more or less persisting way an unsatisfying or nonexistent couple relationship, or in parallel to the couple relationship regardless of the satisfaction it grants, providing an experience of intimate enjoyment.

An exception to this view on masturbation is met when it acquires compulsive or restrictive characteristics, or either it is accompanied by other psychopathological manifestations. In many cases, compulsive masturbators hide a fear of impotence and substitute real sexual relationships (inexistent) with others that are fantasized and accompanied by masturbatory activities.

### References

- 1. Damasio A. The strange order of things: life, feeling and the making of cultures. Toronto: Penguin Random House Canada Limited; 2018.
- Latif EZ, Diamond MP. Arriving at the diagnosis of female sexual dysfunction. Fertil Steril. 2013;100(4):898–904.
- Laumann E, Michael RT, Kolata G. Sex in America. A definitive survey. New York: Warner Books; 1995.
- González-Torres MA, Salazar MA, Inchausti L, et al. Lifetime sexual behavior of psychiatric inpatients. J Sex Med. 2010;7(9):3045–56.
- 5. Puelles L, Martínez P, Martínez D. Neuroanatomy. Madrid: Panamericana; 2008.
- Goldstein JM, Seidman LJ, Horton NJ, Makris N, Kennedy DN, Verne S, Caviness J, Faraone SV, Tsung MT. Normal sexual dimorphism of the adult human brain assessed by in vivo Magnetic Resonance Imaging. Cereb Cortex. 2001;11:490–7.
- Gilmore JH, Lin W, Prastawa MW, Looney CB, Vetsa YSK, Knickmeyer RC, Evans DD, Smith JK, Hamer RM, Lieberman JA, Gerig G. Regional grey matter growth, sexual dimorphism and cerebral asymmetry in the neonatal brain. J Neurosci. 2007;27(6):1255–60.
- 8. Ritchie SJ, Cox SR, Shen X, Lombardo MV, Reus LM, Alloza C, Harris MA, Anderson HL, Hunter S, Neilson E, Liewald DCM, Auyeung B, Whalley HC, Lawrie SM, Gale CR, Bastin

- ME, McIntosh AM, Deary IJ. Sex differences in the adult human brain: evidence from 5216 UK Biobank participants. Cereb Cortex. 2018;28:2959–75.
- Bae BI, Jayaraman D, Walsh CA. Genetic changes shaping the human brain. Dev Cell. 2015;32(4):423–34.
- Lenz KM, Pickett LA, Wright CL, Davis KT, Joshi A, McCarthy MM. Mast cells in the developing brain determine adult sexual behavior. J Neurosci. 2018;38(37):8044–59.
- 11. Rohrback S, April C, Kaper F, Rivera RR, Liu CS, Siddoway B, Chun J. Submegabase copy number variations arise during cerebral cortical neurogenesis as revealed by single-cell wholegenome sequencing. PNAS. 2018;115(42):10804–9.
- 12. Money J. Handbook of sexology. New York: Elsevier/North Holland; 1977.
- 13. Rey RA. Fetal sex differentiation: from molecules to anatomy. Rev Chil Anat. 2001;19(1):75–82.
- 14. Rey RA, Grinspon RP. Normal male sexual differentiation and aetiology of disorders of sex development. Best Pract Res Clin Endocrinol Metab. 2011;25(2):221–38.
- Kernberg O. Love relations. Normality and pathology. New Haven: Yale University Press; 1998.
- Kernberg O. The sexual couple. A psychoanalytic exploration. Psychoanal Rev. 2011;98: 217–45.
- 17. Fairbairn WRD. Psychoanalytic studies of personality. London: Taylor & Francis Ltd.; 1969.
- 18. Stoller RJ. The transsexual experiment. London: Karnac Books; 1975.
- 19. Stoller RJ. Sex and gender. London: Karnac Books; 1984.
- 20. Stoller RJ. Presentations of gender. New Haven: Yale University Press; 1985.
- 21. Stoller RJ. Perversion, the erotic form of hatred. London: Karnac Books; 1986.
- 22. Dio Bleichmar E. Female sexuality. Barcelona: Paidós; 1997.
- 23. Kernberg O. Limitations to the capacity to love. In: Kernberg O, editor. The inseparable nature of love and aggression. Washington, DC: American Psychiatric Publishing; 2012.
- 24. Kernberg O. Sexual pathology in borderline patients. In: Kernberg O, editor. The inseparable nature of love and aggression. Washington, DC: American Psychiatric Publishing; 2012.
- 25. Irigaray L. Das Geschlecht das nicht eins ist. Berlin: Merve Verlag; 1979. Spanish translation: Ese sexo que no es uno. Ed. Akal, Madrid, 2009
- 26. González-Torres MA, Segarra R. Sexuality. In: Eguíluz I, Segarra R, editors. Introduction to psychopathology. 3rd ed. Madrid: Panamericana; 2013.
- 27. www.isna.org [1993-2008].
- Blackless M, Charuvastra A, Derryck A, Fausto-Sterling A, Lauzanne K, Lee E. How sexually dimorphic are we? Review and synthesis. Am J Hum Biol. 2000;12:151–66.
- 29. Roughgarden J. Evolution's rainbow. Berkeley: University California Press; 2004.
- 30. Sadock BJ, Sadock VA, Ruiz P. Gender identity, gender variance and gender dysphoria. 10th ed. Philadelphia: Wolters Kluwer; 2017.
- 31. http://www.isna.org/faq/gender\_assignment
- 32. http://interalia.org.pl/index\_pdf.php?lang=en&klucz=&produkt=1194045247-277
- Hughes IA, Houk C, Ahmed SF, Lee PA, LWPES1/ESPE2 Consensus Group. www.archdischild.com. 2006
- 34. Griffiths DA. Shifting syndromes: sex chromosome variations and intersex classifications. Soc Stud Sci. 2018;48(1):125–48.
- Shoshana Tell AB. Intersex management in the US and non-Western cultures. Einstein J Biol Med. 2015;30:6–15.
- 36. American Psychiatric Association. Diagnostic and statistical manual of mental disorders, DSM 5. 5th ed. Arlington, VA: American Psychiatric Association; 2013.
- 37. Daley A, Mulé NJ. LGBTQs and the DSM 5: a critical queer response. J Homosex. 2014;61(9):1288–312.
- 38. Kingsberg SA, Woodard T. Sexual female dysfunction and diminished desire. Obstet Gynecol. 2015;125:477–86.
- 39. Masters WH, Johnson VE. Human sexual response. Boston: Little-Brown; 1966.
- Basson R, Brotto LA, Laan E, Redmond G, Utian WH. Assessment and management of women's sexual dysfunctions: problematic desire and arousal. J Sex Med. 2005;2(3):291–300.

- American Psychiatric Association. DSM diagnostic and statistical manual of mental disorders. Massachusetts: American Psychiatric Association Mental Hospital Service; 1785 Massachusets Ave, N. W.; Washington 6, D. C. 1952.
- American Psychiatric Association. DSM-III: diagnostic and statistical manual of mental disorders. 3rd ed. Washington, DC: American Psychiatric Press; 1980.
- 43. American Psychiatric Association. DSM-III-R: diagnostic and statistical manual of mental disorders. Washington, DC: American Psychiatric Press; 1987.
- 44. American Psychiatric Association. DSM IV TR: diagnostic and statistical manual of mental disorders. 4th edn, text-revised. Washington, DC: American Psychiatric Press; 2000.
- 45. Binik YM, Brotto LA, Graham CA, Segraves RT. Response of the DSM 5 sexual dysfunctions subwork group to commentaries published in JSM. J Sex Med. 2010;7:2382–7.
- 46. Ter Kuile NM, Brauer M, Laan E. The Female Sexual Function Index (FSFI) and the Female Sexual Distress Scale (FSDS): psychometric properties within Dutch population. J Sex Marital Ther. 2006;32:289–304.
- 47. Basson R, Wierman ME, van Lankveld J, Brotto L. Summary of the recommendations on sexual dysfunctions in women. J Sex Med. 2010;7:314–26.
- 48. Shrifen JL, Monz BU, Russo PA, Segreti A, Johannes CB. Sexual problems and distress in United States women: prevalence and correlates. Obstet Gynecol. 2008;112:970–8.
- 49. Binik YM. The DSM diagnostic criteria for vaginismus. Arch Sex Behav. 2010;39:278–91.
- 50. Brotto LA. The DSM diagnostic criteria for sexual aversion disorder. Arch Sex Behav. 2010;39:271–7.
- IsHak WW, Tobia G. DSM-5 changes in diagnostic criteria of sexual dysfunction. Reprod Sys Sex Disord. 2013;2:122.
- 52. Shifren JL. Overview of sexual dysfunction in women: epidemiology, risk factors and evaluation. In: UpToDate; 2018. https://www.uptodate.com/contents/overview-of-sexual-dysfunction-in-women-epidemiology-risk-factors-and-evaluation.
- 53. McCabe MP, Sharlip ID, Lewis R, Atalla E, Balon R, Fisher AD, Laumann E, Lee SW, Segraves RT. Incidence and prevalence of sexual dysfunction in women and men: a consensus statement from the fourth international consultation on sexual medicine 2015. J Sex Med. 2016;13:144–52.
- 54. Hayes RD, Bennett CM, Fairley CK, Dennerstein L. What can prevalence studies tell us about female sexual difficulty and dysfunction? J Sex Med. 2006;3:589–95.
- 55. Roxo L, Virgolino A, Costa J, Alarcao V. Understanding the relationship between BMI and sexual dysfunction: can DSM-5 shed light into this topic? Rev Int Andrología. 2018;16:3.
- 56. Agronin M. Sexual dysfunction in older adults. In: UpToDate; 2018. https://www.uptodate.com/contents/sexual-dysfunction-in-older-adults.
- 57. Hayes R, Dennerstein L. The impact of aging on sexual function and sexual dysfunction in women: a review of population-based studies. J Sex Med. 2005;2:317–30.
- 58. Potter JE. A 60-year-old woman with sexual difficulties. JAMA. 2007;297:620–33.
- 59. Sarin S, Amsel RM, Binik YM. Disentangling desire and arousal: a classificatory conundrum. Arch Sex Behav. 2013;42(6):1079–100.
- 60. Clayton AH, DeRogatis LR, Rosen RC, Pyke R. Intended or unintended consequences? The likely implications of raising the bar for sexual dysfunction diagnosis in the proposed DSM 5 revisions: 1. For women with incomplete loss of desire or sexual receptivity. J Sex Med. 2012;9:2027–39.
- Johannes CB, Clayton AH, Odom DM, Rosen RC, Russo PA, Shifren JL, Monz BU. Distressing sexual problems in United States women revisited: prevalence after accounting for depression. J Clin Psychiatry. 2009;70(12):1698–706.
- 62. Fenichel O. The psychoanalytic theory of neurosis. New York: Routledge; 1999.
- 63. Bourdieu P. Structures, habitus, practices. In: Bourdieu P, editor. The logic of practice. Stanford, CA: Stanford University Press; 1990. p. 52–79.
- 64. Bokarius A, Jeffrey JK, Davis MC, Bakhta Y. Disorders of orgasm in women: al literature review of etiology and current treatments. J Sex Med. 2010;7(10):3254–68.

- 65. Corrêa LQ, Cozzensa da Silva M, Rombaldi AJ. Sexual dysfunction symptoms in men age 40 or older; prevalence and associated factors. Rev Bras Epidemiol. 2013;16(2):444–53.
- 66. Andrology Australia. Australian Centre of Excellence in Male Reproductive Health. 2018. https://consultations.health.gov.au/population-health-and-sport-division-1/online-consultation-for-the-national-mens-health-s/supporting\_documents/Evidence%20Review%20%20 Current%20state%20of%20male%20health%20in%20Australia.PDF
- 67. Cunningham GR, Rosen RC. Overview of male sexual dysfunction. UpToDate. 2018. https://www.uptodate.com/contents/overview-of-male-sexual-dysfunction.
- 68. Giuliano F, Droupy S. Erectile dysfunction. Prog Urol. 2013;23(9):629-37.
- Koskimäki J, Shiri R, Tammela T, et al. Regular intercourse protects against erectile dysfunction: Tampere Aging Male Urologic Study. Am J Med. 2008;121:592.
- 70. Ludwig W, Phillips M. Organic causes of erectile dysfunction in men under 40. Urol Int. 2014;92(1):1–6. https://doi.org/10.1159/000354931.
- 71. Castilla del Pino C. Sexual paradigmatic behaviors. In: Castilla del Pino C, editor. An introduction to psychiatry. Vol. I. General issues. Psycho(patho)logy. 4th ed. Madrid: Alianza Editorial, S.A; 1993. p. 215–62.
- Althof SE, Schreiner-Engel P. The sexual dysfunctions. In: Gelder MG, López-Ibor JJ, Andreasen N, editors. New Oxford textbook of psychiatry. New York: Oxford University Press. p. 2001.
- 73. Santtila P, Jern P, Westberg L, Walum H, Pedersen CT, Eriksson E, et al. The dopamine transporter gene (DAT1) polymorphism is associated with premature ejaculation. J Sex Med. 2010;7:1538–46.
- 74. Janssen PK, Bakker SC, Réthelyi J, Zwinderman AH, Touw DJ, Olivier B, et al. Serotonin transporter promoter region (5-HTTLPR) polymorphism is associated with the intravaginal ejaculation latency time in Dutch men with lifelong premature ejaculation. J Sex Med. 2009;6:276–84.
- 75. McMahon CG, Jannini EA, Serefoglu EC, Hellstrom WJG. The pathophysiology of acquired premature ejaculation. Transl Androl Urol. 2016;5(4):434–49.
- 76. McCool ME, Zuelke A, Theurich MA, Knuettel H, Ricci C, Apfelbacher C. Prevalence of female sexual dysfunction among premenopausal women: a systematic review and metaanalysis of observational studies. Sex Med Rev. 2016;4(3):197–212.
- 77. Reback CJ, Kaplan RL, Bettcher TM, Larkins S. The role of the illusion in the construction of erotic desire: narratives from heterosexual men who have occasional sex with transgender woman. Cult Health Sex. 2016;18(8):951–63.
- 78. Williamslhak W, Bokarious A, Jeffrey JK, Davis MC, Bakhta Y. Disorders of orgasms in women: a literature review of etiology and current treatments. J Sex Med. 2010;7(10):3254–68.
- Nguyen HMT, Bala A, Gabrielson AT, Hellstrom WJG. Post-orgasmic illness syndrome. A review. Sex Med Rev. 2018;6:11–5.
- Digre K. The American Academy of Neurology Institute. Basic recognizing and evaluating low pressure headache syndromes. 2017. http://www.upandrunningnetworks.com/files/C149\_2.pdf

# Part III Gender and Psychopathology



## **Gender, Corporality, and Body Image**

11

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#### **Abstract**

The body and corporality constitute the nuclear axis of our identity. In Foucault's words, "we are embodied". In this respect, the paradigm of gender is what differentiates human beings at birth in the most nuclear way. The social dimension enters the individual and shapes her/him corporally (embodiment).

This chapter includes the anthropology of gender and the body, together with the cult of the body in Western society, underlining its repercussions for women, the body and language, with the latter understood in Heideggerian terms as the medium that lives within us and shapes us, the body and gender as a nuclear element in constructing an individual's identity and, more specifically, in constructing female identity. The female body over the course of history and its medicalization and removal from public life, the body and corporality according to psychopathology, postmodern bodies and body image, providing the global, complex vision that is the construction of human identity and, in particular, female identity are also featured in this chapter.

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### 11.1 Introduction

The body, corporality and its psychopathology are symptomatologically analysed by descriptive psychopathology. However, many manuals do not even possess a section on the psychopathology of the corporality representing the body, the nuclear axis of our identity. The paradigm of gender is what differentiates human beings at birth in the most nuclear way. Gender begins from birth and before. The first thing one asks about a baby is its sex. Despite biological diversity and the existence of syndromes such as Turner (X0), Klinefelter (XXY), hermaphroditism and pseudohermaphroditism, we present ourselves in a binary manner, being gender one of the taboos that are most difficult to break in our culture; it has been learned and interpreted as a value in our families and social and cultural environments over the course of history.

Hence, the duality of gender may initially seem inevitable as in general, sex and the role of gender attributed at birth are interpreted as a permanent element over one's lifetime [1].

In November 2013, Germany became the first European country to waive the obligation to record the sex of a newly born child on its birth certificate [2], a modest but important legal revolution which enables intersexual people to select the male or female sex at the hour of their choosing. Even though in some nonoccidental societies transgender has lengthily being recognized as a third gender, it wasn't until recently that legal recognition of non-binary gender has begun. Australia was, among western countries, the former one to first recognize a third classification, following a review regarding disorders of sex development published in 2012 by Furtado et al. According to them, it's hard to predict, even for children with normal genitalia at birth, the psychosexual characteristic that each individual will develop in adult life. It's a matter of great complexity. Hence, a more conservative approach is being conducted in those children, according to which a joint decision is made between the physician and the patient's parents to avoid indicating a gender during childhood [3]. Therefore the legal recognition of the third sex seems imperative.

Furthermore, the social construction of gender identity is independent of sexual orientation. The notion of gender challenges the personal and emotional levels of the perception of our culture. What is natural? What is moral? What is normal? What is cultural?

From the sociological viewpoint, the body is individual (our being as a person), social (the use of the body as a metaphor and an organizer of the world around it) and political (the body's disciplines, rules, uses and ideals, which differ in each culture and are modified over the course of history).

Our scope needs to be broadened by including gender when psychopathological aspects are involved. Over the course of history, whenever dynamics changed, symptoms changed. There is a need for a discourse including these aspects, and it should not be limited to academicians, historians, anthropologists or sociologists but directed at mental health in general. The first question in the construction of our

reality must simply be how we know what we think we know: Is gender identity really limited to a binary form? Identity may be more or less masculine, more or less feminine and more or less androgynous. The duality is so descriptive that it transfers to sexual orientation, establishing the homo/hetero opposition, with scant consideration of asexual people.

Therefore, it seems necessary to force open the discourse and incorporate all that is hidden. For many years, men have been regarded as the neutral model and women the sexed one. Masculine education has been preferred for constructing the citizen and a female education for constructing the partner and/or mother of the citizen. Inequalities between men and women reflect the social hierarchization and male domination that is a reality in most societies of our world.

The social dimension is part of the body, if corporality is a process of social interaction. There are various forms of regulating and disciplining the body both in men and in women. With regard to the socialization of women, what is strengthened is the importance of ties and affectivity, while in numerous cultures, public space, decision-making capacity and the means of production, economic and political power lie in the hands of men.

Femininity provides us with an identity that makes us someone to be perceived and viewed and someone who is in a permanent state of bodily insecurity and symbolic alienation. Appearance plays a key role in this identity. The adolescent girl discovers sexuality for the first time, not through an encounter with her body, but through someone else's gaze that undresses her [4].

From the corporeal experience, women's bodies are markedly represented by instrumentalization, dissociation and tension. The body is an instrument, the object for performing a variety of functions of a social, reproductive and productive nature. Maternity and corporal reality would be constitutive elements of an identity that on many occasions is dissociated with a sexuality and sensuality in tense coexistence. Bance [5] mentions the tension produced in the experience of sexuality as an area of exploration, pleasure and action, although at the same time this may lead to distress, repression and the danger of sexual aggression.

The impact of the feminist movement and gender theories has been crucial in social anthropology. However, psychopathology does not understand this type of paradigm as nuclear in the construction of individual subjectivity and therefore in how it is reflected in mental distress, especially in women, the principal users of community mental health services.

Nevertheless, feminist collectives are not responsible for the appearance of the concept of gender. Rather, it is a researcher into human sexuality, Dr. John Money, who used gender for the first time in its cultural acceptation, based on intersexual states in the human species being a scientific reality [1].

The Spanish philosopher, Amelia Valcárcel [6], sees the problem as power. We lack the power to address the problem. What determines what we are at present depends on the possibility of opening up orthodox medical discourse, given that the vocabulary of science is masculine in the main.

### 11.2 Body and Anthropological Aspects

From an anthropological point of view, report anthropologists Marilyn Strathern and Carol McCormack [7], reason and mind have always been related to masculinity, while body and nature have been related to femininity. Nature, represented as feminine, is subordinate to a culture that is masculine.

Margaret Mead's [8] impact on gender anthropology, along with Simone de Beauvoir's work and the arrival of the contraceptive pill, was a landmark that marked a change in the twentieth century for women:

I shared the general belief in our culture that there was a natural temperament which corresponds to each sex, which could, in extreme cases, become distorted or distanced from its normal expression. I failed to suspect that the temperaments we consider innate in a sex, could be rather a change, mere variations of the human temperament, which can be approximated by their education, with a greater or lesser success according to the individual, the members of one or both sexes [8].

The revolution does not lie in conquering male privilege but in eliminating the distinction, Marilyn Strathern points out [9].

Gender anthropology questions the accepted aspects of sexual dimorphism, including the difference in height between men and women, which applies neither to the population as a whole nor to all ethnic groups. Even though not all men are taller than all women, some existing cultural imperatives give rise to this impression. In numerous societies couples are formed in accordance with scales of height, creating the impression that women are shorter. Another widely accepted aspect is that women possess less muscular strength, a smaller breathing capacity, a finer skeleton and a different weight and fat distribution. However, when we take a look at images of prehistoric women, we find out that they are more robust and have much more body hair that seems to exist in a "natural" form in Western women nowadays. The latter are increasingly thinner, with less body hair and more infantilized in terms of their genitals, except for their breasts which are increasingly larger.

In different cultures throughout the world, body care occupies a main space in female identity along with the history of art. The woman's body and its ornaments are the way to attract the gaze of the opposite sex.

In a few African and Asian cultures, neck rings are worn to create the appearance of a longer neck. The custom of wearing neck rings is related to an ideal of beauty: an elongated neck, giving thus rise to their name "giraffe tribes". Padaung women of the Kayan people begin to wear neck coils as young as 2 years old. Neck coils at such a young age can lead to the deformation of shoulder blades and have other medical consequences on the long run; as if they are removed, the neck muscles prove not strong enough to support the head. Strangely enough, in Western countries analogous procedures are being held, such as height-increasing surgery, using a head implant to increase the height and attractiveness needed, for instance, to become a model.

Further example of body modification can be found in foot binding. Foot binding, also called "lotus foot ancestry", is the custom of applying tight binding to the feet of young girls in order to prevent further growth. Tiny, narrow feet in women were considered attractive and made their movements more feminine. It became very popular in China as men considered it highly attractive, and it still takes place in Guangzhou, China. Western fashion nowadays involves women wearing high heels which can also deform their feet, and in the nineteenth century, most women possessed a permanently deformed rib cage caused by the habitual wearing of corsets that conformed to the fashion for narrow waists.

While in some parts of Africa and in Asian countries the lower lip of girls is cut by their mothers or by another woman from their settlement, Mursi women in Ethiopia wear lip plates that deform their lips, and Western women get silicone injected into theirs in an attempt to gain attractiveness.

Ablation of the clitoris, feminine genital mutilation, affects 135 million women and children throughout the world. It is widespread in a large part of Africa for religious reasons. In Western countries, female genital cosmetic surgeries, which include vaginoplasty, labiaplasty and hymenoplasty (reconstruction of the hymen to a pre-sexual state), are now more common than years ago, as the practice of plastic and cosmetic surgery grows year by year in Western countries. In June 2017, the International Society of Aesthetic Plastic Surgery [10] released the results of their annual Global Aesthetic Survey for procedures completed in 2016, showing an overall increase of 9% in surgical and non-surgical cosmetic procedures when compared to 2015. In the USA, the leading country on the Rank, 4,217,862 were carried out in a single year. Women continued to drive the demand for cosmetic procedures, accounting for 86.2% of cosmetic procedures worldwide, being breast augmentation, liposuction, eyelid surgery, abdominoplasty and breast lift the most popular procedures requested.

Aside from body care, motherhood is the principal aspect of female identity in Western culture. It defines women. But, according to Elizabeth Badinter, there is no such a thing as maternal instinct. In Greek mythology, Zeus brought a baby to Hera to suckle on her milk while she was asleep. Suddenly, she woke up and pushed the child away, spurting milk which created the Milky Way. In eighteenth century France, upper-class women often did not breastfeed their babies, preferring to employ wet-nurses from the poorer classes and reclaim their social lives. Elizabeth Badinter [11] contends that the politics of the last 40 years have produced three trends affecting the concept of motherhood and, consequently, women's independence. The first one is what she calls "ecology" or the desire to return to simpler times; the second, a behavioural science based on ethology, the study of animal behaviour; and lastly, an "essentialist" feminism, which glorifies breastfeeding and the experience of natural childbirth, while disparaging drugs and artificial hormones, such as epidurals and birth control pills. The reasons underlying this change are various, as she states: "a series of economic crisis have left women disenchanted with the workplace. Daughters have reacted against the feminism of their mothers. Most of all, we have seen the return of a naturalist ideology. Under the pretext of a return to nature, women in our time are being enlisted under the

flag of natural child-raising. We decry the materialism and consumerism that made us throw out the timeless wisdom of nature, and we dismiss their offerings as tools of maternal egotism. Today's ideal of motherhood requires that we give birth in pain, without the benefit of an epidural, since this robs us of our first act as a mother. We are enjoined to nurse for 6 months, a year, or longer, day and night, whenever our child wishes, regardless of the mother's situation. With all of its demands, the naturalist ideal of the twenty-first century means that it takes a woman as much time and energy to raise two children as our grandmothers spent raising four. This ideal of the modern mother represents a big change in the condition of women. For some, this new way of life may deliver a kind of joy, allowing women to immerse themselves fully in the act of being a mother, but for others it is a burden, a source of anxiety and isolation. By failing to take account of women's diversity, by imposing a single ideal of motherhood, and by pursuing the notion of a perfect mother, they fall into a trap, which has disastrous consequences. As seen in countries such as Germany or Japan, wherever the duties of the good mother weigh too heavily on women's freedom, the birth rate has sunk too low for the species to continue".

Mithu Sanyal [12] has reviewed the invisibility of the female sex throughout the history of the Western world. In the first texts, the vulva was seen as principally a wound and then a crack by a world that rejected its existence through denial. Female genitals are the point where the interior meets the exterior. Psychoanalyst Harriet Lerner wrote in the 1970s about the difficulties experienced by many women in naming their own genitals and their inability to explore their own body. What they touched lacked a name. The absence of an explicit recognition and nomenclature for the girl's genitals had to have pathogenic consequences. At the end of the nineteenth century, the terms vulva, clitoris and labia did not appear in the dictionary; just as the only word for female genitals in the dictionary today is vagina.

Freud deprived women of a self-determined sexuality. To challenge this is to fight a monster, a myth that has taken on life of its own through two words: penis envy. Sanyal asserts that psychoanalysis has committed matricide by killing the mother and placing the father at the heart of culture. It is odd that Lacan, who created the concept of the "Law of the Father", displayed reluctance to exhibit in his own home "The Origin of the World", Gustav Courbet's famous painting featuring a close-up of female genitalia. The painting, which may be seen nowadays at the *Museum d'Orsay* in Paris, was kept hidden behind a sliding door created by Surrealist painter, André Masson. With Freud, there is just one libido, the masculine one, from the moment it is identified with the forms of domination. Simone de Beauvoir in *The Second Sex* [13] criticizes psychoanalysis by stating that the concept of penis envy is symbolic of envy of power, symbolizing the privileges allowed to boys, the place the father holds in the family and the universal predominance of boys, reinforcing masculine superiority. The descriptions of the female libido are poor, stemming their study from the male libido and not from itself.

Sexuality, violence, appropriated bodies and medicated bodies are often related to women, as Michel Foucault [14] expressed in *Histoire de la Folie à l'Âge Classique*, in which he questioned the medical view from the classical hysteria diagnosed by Charcot.

The twentieth century is considered revolutionary for women in Western culture. Society was deeply transformed in the manner in which male and female conception was perceived. Women could join the workforce and take up further education. In the 1950s, the arrival of the contraceptive pill brought a revolution in reproductive control changing the life of many Western women.

Unfortunately, at this point we shall acknowledge that the revolution has not meant that women have entered the workforce and social life in the same way as men. The shift from private to public life has not guaranteed an actual transformation in real life for women throughout the world. Modern conceptions remain traditional. In today's world, media and the market, including the pharmaceutical one, are at the core of women's bodies. And the same can relate to the female sexual organs, for which a large market has grown, in contrast with men, such as creams to protect women from their own malodorousness.

As the philosopher Pierre Bourdieu [15] affirmed: "There is a symbolic violence against women that leaves them moving from one space to another". The body's increasing power as the identity of the human being turns women into objects. And objects are more easily manipulated both economical and symbolically.

The symbolic violence suggested by Bourdieu implies that the androcentric world is presented as neutral, keeping most women trapped inside, trying to do what should be done, while receiving as message that inequality does not exist and that they are to blame for not being able to reach a certain position. To a certain extent, this resembles the learned helplessness described by Seligman.

## 11.3 Body and Language

Heidegger [16] recognized that the entire evolution of Western philosophy and science, from Greek philosophers onward, was based on descriptions of the world as a human observer would see it from God's perspective. Yet every human being lives in the world as a part of it, not apart from it. If we fail at taking the initial step of creating distinction between subject and object, between the human being who describes and the world that is described, what different view will we provide of our experience of life? Who am I as an individual? Do I take charge of my life or do others take charge for me? Heidegger [16] sensed that the evidence was based on the sea of language in which we are immersed from birth. This knowledge is transmitted by two difference mediums: isolated words, as they are pronounced, and the diverse forms of language, teaching, bias, traditions, rituals and customs that shape culture. People do not create language, but are created by it; we don't speak through language, but rather it speaks through us. "Language is the house of being. In its home, Man dwells", Heidegger said [17].

This vision of language underlines, among others, that it is impossible to understand language separated from the bodily act of speech. It presents language as the most important way in which a person can display his/her real world to others. It demonstrates that language exists in the social space between people within our sense of being which is created in all its aspects: corporal, mental and spiritual. As Heidegger said in 1971 [16]:

If we take language directly in the sense of something that is present, we find it in the act of speech, the activation of the organs of speech, the mouth, lips, tongue. Language is reflected in speech as a phenomenon that occurs in Man. It is demonstrated by the names that Western languages have given to it themselves: glossa, lingua, langue, language, lenguaje. Language is the tongue. (p. 96)

We can contrast this vision of language with the concept grounded in the twentieth century in which language is a form of communication [18]. Maturana and Varela [19] called this perspective "the metaphor of the tube", since communication resembles a tube through which a person, the addresser, sends an idea to another person, the addressee, who receives it. According to this, the communication process comprises a single subject, the addresser, while the addressee becomes an object in the process. However, contained in Heidegger's analysis is the fundamental way in which human beings are physically present some with others. Language is a form of being. Heidegger's work underlines the critical importance of the ways in which language governs the experience that people have of their bodies and the actions of those surrounding them.

Merleau-Ponty, a disciple of Heidegger, believed that our experience of the body comes from the sensations of feeling and being felt. Both Heidegger and Merleau-Ponty believed that an understanding of language was inseparable from the bodily act of speaking. Language does not exist within individuals but in the social intermediate space. This matrix of language (languages, traditions, custom and other social uses) creates the identity of each individual. People do not select the history that makes up their personality; nor can they relinquish it easily when its consequences are undesirable. This personal narrative chooses us as much as we choose it. His work on philosophical hermeneutics showed that the division between the mind and the body, upon which modern medicine is based, is a socially generated interpretation and is imposed on life as human beings experience it, rather than a reflection of an objective reality situated beyond human experience [20]. From this perspective, biomedical science has continued largely unaware of its own condition; it is neither the only valid tradition nor the mirror of reality [18].

Language, seen from the perspective of cognitive sciences, throws new light on the relationship among ideas, language and the body. The perspectives of philosophical hermeneutics and cognitive science locate language in the interactions between people and not within the mind of each individual. More than a vehicle that transports abstract communications between individual minds, it is coordination of bodily states between members of a social group that preserves the integrity of the group and of each individual [18].

Hence, Robin Lakoff argues that language uses us as much as we use it, meaning that, just as the thoughts we wish to express guide our choice of forms of expression, the way in which we perceive the real world dominates our form of expressing ourselves. The relationship among the language, mentality and social behaviour of each human group raises anthropological concerns.

Language, as a symbolic system, is not neutral with regard to gender, just as it is not neutral with regard to ethnicity or social class. Language has an androcentric bias. Girls and boys learn to symbolize while they are still young, when they are

barely aware of the meaning of their words. Linguistic transformations can influence the form of understanding and interpreting the world. Therefore, language has a clear impact on individuals. One of the key criticisms by feminists of Foucault's work is precisely the lack of gender perspective in his analysis of language [21].

One of the expressions of sexism in most European languages, especially those of Latin origin, consists of the use of masculine lexical form to talk of both male and female, while feminine lexical forms are usually semantically gender-specific. The use of generic male form gives rise to phrases in which it is impossible to tell whether the speaker is referring exclusively to men in particular or to human beings in general. For instance, the word "man" could refer to person (either feminine or masculine) or an adult male. Man is a universal term for human as well as for the whole of men, while the word woman doesn't have that capability. Woman is the particularity, the "alternative" to man, bringing out this way that it isn't as worthy as man is to represent humanity; it is different and, at the same time, inferior. Language is full of such examples, where woman's quality of different and inferior is stated, sharing and perpetuating this values through speech [22].

Monique Wittig was aware of the power that language has to subordinate and exclude women. She believed it to be another order of materiality, an institution that can be modified. As Wittig asserted, "language throws bundles of reality onto the social body". This involves redescribing the already existing options within the cultural fields, which are deemed unintelligible and impossible. The human being, from what it is, accesses reality through language, in a medium "obstructed by words". To describe a man as Don Juan, we resort to literature, but in the case of a woman, we use psychiatric vocabulary: nymphomaniac. Why has male sexuality been constructed culturally as promiscuous, but not its female equivalent? To what extent is the construction of sexuality related to the survival of the species?

The development of a language that represents women fully and adequately has proven necessary to promote their political visibility. This has been of great importance when taking into account the underlying cultural situation, in which the life of women is inadequately represented or not at all.

On the other hand, women are traditionally labelled as talkers, while, as a matter of fact, ethnographic evidence shows that men speak more than women while conversing with one another. This contradiction connects to the fact that women are not compared with men in terms of their capacity of communication. Rather, the parallelism established is that of silence, so that any expression is interpreted as "talking too much". Not only do men talk more, they also interrupt more frequently, providing another example of male domination. The stereotype of silence as a quality that is highly valued in women was forged by reinforcing the negative image of the woman who dares to speak in public, an image that continues to form part of the collective imaginary in the contemporary world [1].

For the anthropology of gender, of great interest are Foucault's ideas on the role of language in the construction of the body and sexual identities, with regard to the distribution of power between men and women. In his view [23], there are normative discourses that transmit the "truth". This implies that certain forms of knowledge are considered truthful, and group thinking may be controlled through the

discourses that carry the norm. Such discourses would create categories of identity closely linked to what is considered to be normal or abnormal in societies, maintaining relationships of domination and power. This exerts a powerful influence on the idea that people possess their identity. The problem is that, when Foucault speaks of the sexed body, he is speaking of the male body as normative. He does not analyse the attitudes and behaviour of women with regard to the social expectations of how their bodies should be.

If de Beauvoir's assertion [13] that "one is not born a woman but rather becomes one" is correct, woman is in itself a term in process, a becoming, a constructing that cannot rightfully be said to begin or end. As an ongoing discursive practice, it is open to intervention and resignification. This is the notion of body not as an available surface that awaits signification but as a set of individual and social limits that remain and acquire meaning politically. Referring to an original or authentic femininity is against the present need to analyse gender as a complex cultural construct [24].

De Beauvoir's theory had consequences that she did not initially consider. If sex and gender are radically different, then there is no evidence that a specific sex is the same as a specific gender; in other words, woman is not necessarily the cultural construct of the female body. And the same is applied in the case of men. This assertion about the sex/gender division reveals that sexed bodies may be of many different genders. If sex is not limited to gender, it follows perhaps that there are genders, forms of culturally interpreting the sexed body that is not limited to the apparent duality of sex.

The new term transgender refers to individuals, behaviours and groups that diverge from the most traditional dual gender roles and cross accepted limits. It includes a varied group of androgynous or transsexual people, in which the desire for surgical reassignment of genitals is not essential. The term is employed as a synonym to express the third and fourth gender and encompasses the Hijras of India and Pakistan [25] and eunuchs of eastern harems [26]. It is used to mean "other" in the sense that generic duality is broken [1].

In practice, the expression queer, which originally meant strange or unusual, is employed to define a wide group of people: lesbians, gays, bisexuals, transgender, transsexuals, homosexuals and intersexuals. Basically, these are people, behaviours or groups that transgress normativity. As indicated by the philosopher, Beatriz Preciado [27], in her *Contrasexual Manifesto*, if a woman wants she can become of neither female nor male gender: neither woman nor man.

## 11.4 Body and Gender

Gender is the cultural construct created by society as a whole with regard to anatomical sex, and it's one of the most difficult taboos to break in our culture. According to the era and culture involved, it will be determinant for the destiny of a person.

One of the problems faced is that the term "women" indicates a common identity [24]. John Waters' film Female Troubles, starring Divine, proposes implicitly that

gender is a type of persistent characterization that passes as reality and that is precisely because female doesn't seem to be a stable notion; its meaning is as vague as woman.

As the title by Denise Riley "Am I That Name?" suggests, a question raises by the possible multiple meanings of a name. Being a woman evidently needn't be everything one is. Not just because a person with a set gender goes far beyond the specific attributes of his/her gender but because gender is not always constituted coherently or consistently, and it intertwines with racial, class, ethnic, sexual and regional types. Hence, it is impossible to separate gender from the political and cultural intersections in which it is produced and maintained.

Is gender something that people possess or is an essential attribute of what a person is? If gender is constructed, can it be constructed differently or does its construction entail some form of social determinism that denies the possibility of the agent acting and changing? How and when is gender constructed?

As stated above, Simone de Beauvoir [13] asserts in *The Second Sex* that one is not born a woman but rather becomes one. For de Beauvoir, gender is constructed, being in its approach implicit that gender is something variable and volitional. Can therefore the construction be circumscribed to a form of choice? De Beauvoir holds that one becomes a woman but always under the cultural obligation to do so. And, as laid down in her study, there is nothing to guarantee that the person who becomes a woman is forced to be of the female sex. If the body is a situation (a body always interpreted by cultural meanings), sex by definition has always been gender [28].

This gives rise to two positions: on one hand, those who maintain that gender is a secondary feature and, on the other, those who hold that the very notion of person placed in language as a "subject" is a construction, granting the male an original (natural) value and underlining in the female a mask-like nature.

In the philosophical tradition that began with Plato and continued with Descartes, Husserl and Sartre, the ontological differentiation between soul (conscience, mind) and body always acts in defence of relationships of subordination and political and psychic hierarchy. Not only does the mind subject the body, but it perhaps plays with the fantasy of escaping totally from its corporeality. The cultural associations of the mind with masculinity and the body with femininity are well documented in the field of philosophy [29].

Foucault, in the first volume of *The History of Sexuality* [23], said that the categorization of sexual difference takes place through a form of historically specific sexuality. In his interpretation of the diary of a hermaphrodite, Herculine Barbin, Foucault held that Herculine is not an identity but the sexual impossibility of an identity. The demand for an identity is a culturally limited principle of order and hierarchy, a regulatory fiction. Hence, gender is performative, shaping the identity it is supposed to be. Accordingly, gender is always a doing. *On the Genealogy of Morals*, Nietzsche asserts that there is no being behind doing, acting and becoming; doing is everything.

Brigitte Baptiste, the Colombian biologist, university professor and director of the Humboldt Institute said in Inventing the Body [30]:

Ever since I can remember, I've felt that my body wanted, even needed to grow differently. That it wanted to live with different features, with a different view of the world. Needless to say, like many others, I was inside the wrong body. As I grew, I had to ignore and conceal what I imagined my body wanted to be. I learnt to draw. I drew my body and I drew the alien body I eventually wanted to transform into. And many years passed before the pain of not being what I wanted to be pushed me to change into Brigitte. In my search for feminity, for a role in this world that corresponded with all that I had learned, I wanted to be Brigitte Bardot on the silver screen in the 70s. Because in reality, the notions that we have of gender all derive from literature, from art, from family conversations, TV and films.

Hitherto, most studies of gender socialization have focused on social behaviours. From a young age, peers and parents, as well as other adults such as teachers, or the media, contribute to the different socialization of boys and girls, which, as many studies confirm, influence many aspects of behaviour and thinking in accordance with gender schemas. By reinforcing sex-appropriate activities as well as by providing resources to support different interests for boys and girls, parents influence, among others, the career choices of their offspring. Children are encouraged to be like others of their own sex and form cognitive constructions or networks of associations about the sexes [31]. Nevertheless, lately there is increasing recognition that biological predispositions play a role in gender-related characteristics as in other psychological traits. Studies conducted in females with congenital adrenal hyperplasia (CAH), i.e. that are exposed to an excess of androgens early in gestation, when compared to unaffected females, often their sisters, show that androgens masculinize personal-social characteristics, cognitive abilities and activity and occupational interests [32]. Anyhow, we shouldn't forget that the brain is the synthesis of biology and socialization, which means that the experiences we have change our brain.

In nature, a great biodiversity can be found, allowing different forms of interactions and perpetuating life. Humans live under strict cultural constructions such as gender, where a control of the body, of what may or may not be done is established, within nature, there is no right or wrong behaviour, within nature, gender has no boundaries.

Rubin [33] asserts that before the transformation of a biological man and woman into a man or woman with gender, each boy or each girl possesses all the sexual possibilities available for human expression.

Theories based on Lévi-Strauss's structuralist anthropology present the problematic differentiation between nature and culture in an attempt to support the differentiation between sex and gender: the underlying idea is that there is a natural or biological woman who subsequently becomes a socially subordinate woman, with the result that sex is to nature what gender is to culture. If this were the case, the trail of the transformation of sex into gender as a stable mechanism could be followed in all cultures, but it's not.

In marriage, the woman is not considered to have an identity, but a term of relation that differentiates and at the same time establishes links between the various clans of the patriarchal society. The bride, the gift, the object of exchange is a sign and a value that initiates a channel of exchange that not only achieves the functional aim of simplifying the trade but also reinforces the internal links and the collective identity of each clan. Despite pointing out how important women are to society and the forge of alliances as the "supreme gift", comparing women to gifts, in fact,

objectifies women as well as dehumanizes them. Simone de Beauvoir [13] taking up Lévi-Strauss' ideas on marriage states that this is not a link established between men and women but between men through the use of women.

Gender stereotypes are social constructions that constitute deeply rooted ideas in the conscience that escape the control of reason. "Gender is a norm, and norms may or may not be explicit, but, when they operate as the normalizing principle in social practice, they usually remain implicit, difficult to read, discernible most clearly and dramatically in the effects that they produce" [34]. The aim is for it to seem perfectly natural for men to be better equipped for some specific roles and women for others. However, gender stereotypes are not stable and change from one culture to another. While, for instance, wearing a kilt is to be socially masculine in Scotland, it is unthinkable for a German boy to wear a skirt to school. Personal adaptation to stereotypes responds largely to people's need to feel socially integrated [1], and those who don't adapt are considered aberrant.

However, there is more to the problem than the existence of culturally constructed characteristics associated with the gender stereotype, such as the association of those stereotypes with the male gender being valued as superior.

While male ruling the world would have made sense a thousand of years ago, when human beings lived in a world in which physical strength was the most important attribute for survival (and men, in general, are physically stronger than woman—taken account some exceptions), we live in a vastly different world nowadays, being the most qualified to lead not the physically stronger person, but the more intelligent, knowledgeable, creative and innovative one. And a man is as likely as a woman to be intelligent, innovative or creative. We have evolved, but our ideas of gender have not evolved very much [35].

The social differences between men and women are not immutable, nor are they universal or objective. People are educated from a young age in accordance with social paradigms about the interpretations of being a man or a woman. And this is usually accepted wholeheartedly, finding it normal. The precept of being of a specific gender in the case of women generates failures: a variety of inherent configurations that in their multiplicity exceed and challenge the precept through which they were generated [24]. Being of a specific gender is generated through discursive routes, being a good mother, being a sexually desirable object, being a skilled worker. This represents a large amount of guarantees that satisfy a variety of distinct demands. Over history, this has been idealized or manipulated from the perspective of making maternity women's raison d'être.

From our viewpoint, this, per se, seems to generate psychic distress and show associated psychopathology, explaining the need to include this paradigm in corporality and body image.

## 11.5 Body and Historical Aspects

In the history of psychiatry, the pathological condition of the female body is a constant. For Greeks, hysteria is a word that means uterus. Plato [36] in his text Timaeus (which was later integrated into Western medical tradition through Galen and the Hippocratic writers) asserted that:

The matrix or womb in women, which is a living creature within them, longs to bear children. If it is left unfertilized long beyond the normal time, it causes mayhem in the body; it blocks the breathing channels and causes in consequence acute distress and disorders of all kinds. If it is not "appeased by passion and love", the womb moved from its natural position within the body and, attaching itself to soft internal tissues, gave rise to a wide variety of symptomatic disturbances [36].

Through the history of psychiatry, the woman's body has been catalogued as being more prone to illness. Women suffer from nervous disease, neurasthenia, sickness and gloom more frequently, while chlorotic women are often described in nineteenth-century Gothic literature. Galen, reproducing Greek's medicine model, thought women to be more likely to suffer mental illnesses and to be weaker and cripple. He also believed they were predisposed to be compliant and servile. The conception that female organs were inverted and underdeveloped within the body was held by Galen and subsequently by medieval philosophers. Albertus Magnus reckoned that women were not in their nature human beings but a failed birth. This conception of the female sex was maintained until the sixteenth century. Over history, the male sex is the only one that has been truly constructed, while the female has been constructed in opposition to him [37].

From a historical viewpoint, male domination was highlighted from the end of the Medieval period through the change of inheritance laws, the ban of women from universities and the Church's debates on women's duties. Accordingly, the Church had a negative view, with the Dominicans and the Inquisition removing women from other professions (such as doctors or translators, which weren't infrequent in the Roman Era). On account of the influence exerted by the Church, women were confined within the domestic environment, the indissoluble matrimony making them disappear from public life.

The art historian Julia Varela [38] explains that in the artistic world (masculine in the main as well), the power inequality between men and women can be objectified, given that every painting is a depositary of the social relationships and encloses an interpretation of the world. An example can be found in the Annunciation from the pictorial images of the late fourteenth to seventeenth century, where the Virgin shifted from being the "mother of God" to "the Lord's slave" whenever the weight of religiousness grew.

The imbalance of power between men and women becomes an increasingly accentuated process. In the era of Descartes, rationality was masculine and women moved to the private space. There were new urban strata in which the arrival of the bourgeoisie meant that the woman was spouse, mother and housekeeper.

The French Revolution did not bring about a change for women. It was respectful with institutions and bourgeois values. In the fifteenth century outstand Olympe de Gouges' contributions. The author of the famous *Declaration of the Rights of Women* (1791), which began with the following words, "Man, are you capable of being just? It is a woman who poses the question", was subsequently executed by guillotine. Mary Wollstonecraft, the author of the famous *Vindication of the Rights of Woman* (1792), and the feminist John Stuart Mill, who issued the first call in the British Parliament in favour of female suffrage (1867), were also key figures in the

women's rights history. Finally, the voting right was granted in the UK and Germany in 1918, in Spain in 1931 and in France in 1944 (4 years ahead of de Beauvoir's book was published). In Switzerland, women were not allowed to vote until 1971, while some countries such as Saudi Arabia have just recently approved women's voting rights.

Bertha Pappenheim, a Jewish feminist in the twentieth century who found fame as the first woman to found an orphanage in Germany, fought for women's rights and translated Wollstonecraft's Vindication of the Rights of Woman. Wollstonecraft was the mother of Mary Shelley (author of Frankenstein) but died in childbirth, leaving the baby to be raised by her father, a political anarchist. Mary was cast out by her father when she began a relationship with the poet Shelley, with whom she had to flee the country in order to marry. Some articles show that perhaps the Frankenstein monster, who was able to think and feel emotions but was not human, recalls the situation of women in the late nineteenth century, when they were unable to study, had no access to family inheritance, lacked the vote and were judged on whether they would form a good marriage. Bertha Pappenheim was also famous in the history of psychiatry for being the subject of Breuer and Freud's famous case "Anna O". She suffered a "hysterical collapse" when she had to care for her infirm father. Twenty-one at the time, Bertha stopped eating and displayed multiple physical symptoms including mood swings and absences. She also had rage outbursts, during which she broke objects and suffered from headaches and morphine dependency. According to today's classifications, she might have been diagnosed with emotional instability disorder or borderline personality disorder. However, as mentioned above, her life took a different course. Such was her role in the social reintegration of women that her image was used for West Germany's first set of stamps, which were devoted to the benefactors of humanity. Many people are unaware of how Breuer and Freud's famous clinical case developed.

Another prominent case was that of Blanche Wittman, a Parisian nicknamed "the Queen of Hysterics". She was admitted very young to the Salpêtriére Hospital where she got famous for her hysterical crises, which were recorded in paintings of the time. This took place in the context of what was called "moral therapy" imported by Pinel and implemented in asylums such as Salpêtriére. The aim of this "therapy" was to temper passions and destroy deliria through kindness, persuasion and respect for the doctor's authority. Therapy sessions looked almost like authentic performances, as seen in the famous painting A Lesson at the Salpêtriére where one of Charcot's famous classes can be seen, in which Blanche, a Salpêtriére resident for many years, is held in Babinski's arms in a show to which members of Parisian high society were invited. The large amounts of photographs from that time are well known. At the start of the century, very long exposure times and proper lighting were needed in order to create the right conditions for the photographs; the hysterical women were capable of warning of a possible "crisis" to allow the time for them to get ready [39]. The hysterical women of the Salpêtriére led Foucault [14] to question the role of the doctor, who was none other than the great Charcot. However, few people know that following Charcot's death, Blanche left the Salpêtriére to return some years later as an employee, initially in the photographic laboratory and from

1900 on in the radiology service. She proved herself to be commanding, hardworking and a good organizer in her work.

The Aimée case, known for "curing" delirium, may perhaps be the least followed one. Aimée, who gained fame for her "self-punitive paranoia" as Lacan termed it, was meant to be known in asylums as "the delirium pensioner". With the real name of Marguerite, she ended up working as a cook and governess, without displaying any further signs of madness. She even worked in the house of Lacan's father. Marguerite's son, who subsequently became a psychoanalyst, learned on the couch of his teacher, Lacan, that his mother was the subject of the famous case of Aimée ("the loved one").

The study of the body experience, from the perspective of phenomenology and anthropological psychiatry, has provided great knowledge of the alterations of the experience of one's own body in different mental diseases. This is especially true in those in which there is a confrontation between the body and personal identity, and it is necessary to consider the process of individual identification and a category of personal identity disorders [40].

The gender perspective is essential to explain body experience and identity, and it needs to be included in order to understand in depth how certain disorders are more frequent in women in our culture. Husserl believed subjectivity to be the core problem of knowledge, and it only exists in embodied form. The integration of the individual in actions is performed through the body; it is expressed in it and also reveals the deep sense of fullness of the woman as a person. The question of subjectivity is deeply transformed by gender. Matthew Ratcliffe, in his book, *Feelings of Being*, describes existential feelings such as isolation in Sylvia Plath's novel, *The Bell Jar* [41],

I knew I should be grateful to Mrs. Guinea, only I couldn't feel a thing. If Mrs. Guinea had given me a ticket to Europe, or a round-the-world cruise, it wouldn't have made one scrap of difference to me, because wherever I sat—on the deck of a ship or a street cafe' in Paris or Bangkok—I would be sitting under the same glass bell jar, stewing in my own sour air. (1966, p. 178)

Sylvia Plath's work is inseparable from her existence and the feminist view, as her contemporary, Anne Sexton, expressed in her poems. They were women, they were poets, and committed suicide. Both were diagnosed with depression and were in psychiatric treatment. To fully understand her novels in depth, it is necessary to look at what a woman was supposed to be at that time. The following is part of the testimony of her friend and writer, Jillian Becker [42], on the final days of Sylvia Plath:

I had met her in September 1962, shortly after her marriage to Ted Hughes had broken up. I felt sorry for her. I admired and envied her talent... On a freezing afternoon in February 1963, Sylvia arrived with her children... Her doctor spoke to me on the phone. He told me not to do everything for the children, that Sylvia must look after them, she must feel that they needed her. So I asked her to come with me, when I took them to the bathroom, when I prepared their meals, when Nick needed feeding and changing. But she didn't pick up soap or a towel, or a spoon, or a safety pin. I'd leave the room, but she'd wait for me to return. My choice was to let them go unwashed, unfed, unchanged, or do the job myself. Mostly I did it...Sylvia suddenly said: "I must get back. I have to sort the laundry... My husband asked her if she was sure she wanted to go. She said she was. So he drove her

home. Only when he stopped at a red light did he hear the sound of weeping. He parked the car and went to sit on a jump seat opposite Sylvia. He implored her to let him bring them back to our house. She refused. He came back and told me that he wished she had stayed on with us, that he didn't think she could cope on her own. On the Monday morning at about eight o'clock the phone rang. I answered, and Dr. Horder told me Sylvia had put her head in the gas oven and was dead.

As a confessional poet, Anne Sexton exploited the intimate details of her life for her poetry. "Poetry milks the unconscious", she said. Sexton lamented and celebrated female identity, sexuality and power by revealing painful and shocking personal details about her life. Although she always insisted that her poetry was not autobiographical, her exploration of difficult and taboo female subjects, such as abortion, menstruation, menopause, masturbation or desires, was made with such frankness that most readers and critics felt that the line between Anne the woman and Sexton the poet was often blurred.

Female subjectivity is constructed in relation to the body, taking care of others, and love as nuclear. Responsibility for others (children, husband, parents) occupies an important part of female identity. Values such as sacrifice, effort, caregiving responsibilities and the ability to withstand hardship are part of most religions and culture and are a breeding ground for expressing psychic disturbances in women much more frequently than in men. Elfriede Jelinek (2004 Nobel Prize winner) [38] said in her novel *Die Liebhaberinnen* (Women as Lovers) that, in female lives, love is working. Art, literature and history provide us with many examples of it.

Virginia Woolf, in her essay A Room of One's Own, published in 1929, expressed the real position of women at that time which still remains: "For most of history, Anonymous was a woman". "Imagine that men were only represented in literature as women's lovers, and were never friends, soldiers, thinkers, dreams; how few parts in the plays of Shakespeare could be allotted to them; how would the literature suffer". If this were the case, literature would be dramatically impoverished and so, she argues, has happened by closing the doors on women's writing. Satirically, she describes her perplexity about why are there so many books written by men about women but none the other way round.

"A woman must have money and a room of her own if she is to write fiction". "It is fatal to be a man or woman pure and simple: one must be a manly woman, or a womanly man" [43].

## 11.6 Body and Corporality

Corporality and body awareness have possessed a descriptive basis since Jasper's [40] work in 1913:

The body itself is aware for me like my existence, and at the same time I see it with my eyes and I touch it with my hands. The body is the only part of the world that is simultaneously felt from within and its surface perceived. It is an object for me and I am that very body. I feel physically and I perceive myself as an object in two ways, but both are indissolubly united.

The body that I am and the body that I have are linked by Jaspers in the form of a simultaneous experience of bodily sensations and feelings arising between them. The body schema articulates all corporeal experiences, providing a clear reference point of what we really are (bodily).

Awareness and corporality are key concepts in Jaspers' psychopathology, and it is through them that the awareness of self is lived. That is, through the feeling of their unity, of their identity and finally, of their opposition to the external, the self becomes aware of itself.

Contact with the outside world is made by dint of our body. The latter, on the one hand, belongs to the world of things and, on the other, to our own world. We both are a body and have a body. When we feel sad and weary, the experience of the spirit and the body itself merge in an overall manner at the same time. Alternatively, as Fernando Colina states in his book *Escritos Psicóticos* [45]:

What we know and do not know about melancholy comes from the body: it is the source of melancholy as much as its chamber, it is the library, the lesson, the tongue itself. The body refers us to two extremes: the somatic, which is the mute, the organic and the pulsional; and to the flesh, yearning, language, the writing of desire between the signs of the body. Sadness, as if we were dealing with a blanket, is always that of the body, that is, of what is dying, of the most constant, visible loss.

German language distinguishes neatly by means of two different words between the body as an object or objective reality (Körper) and as a lived or experienced reality (Leib) [40]. These two forms of knowing the body aren't, though, that well expressed in Spanish. Ortega y Gasset [46] called the former "extra-body" and the latter "intra-body". The latter has no colour, nor defined form, unlike the extra-body. It comprises fundamentally the feelings of movement or tactile feelings of the viscera and the muscles, the impression of the contraction and dilation of the blood vessels, the small perceptions of the flow of blood in the veins and arteries and the feelings of pleasure and pain. The intra-body is therefore not so much the body seen from within as the body lived from within. The terms are distinguished: the body is something that is anatomical and physiological, and corporality is a lived experience, specifically, that of the body as a phenomenological reality.

Marcel [47] published in 1927 his conception of "corps vécu" which includes the notions of "my body in that it is mine, my body as being in the world and the body as a sign of existence".

Sartre [48] distinguished between the body as a being for itself and the body as a being for another. It represents a form of being in the world, of occupying it, projecting it, recalling it, sharing it. This is why it occupies a space, projecting and recalling within a time and shared by others. Living corporally is precisely what provides a meaning of reality or what is the same, a reality with a meaning. Being a man and being a woman is giving meaning to the world. The world into which we have been cast, according to Heidegger's expression, is constituted from corporal intentionality. It is the body that, by creating space and time and in meeting with others, makes the world real.

Existential analysts distinguish three types of world, i.e. three simultaneous aspects of the world that characterize the existence of each being in the world [49]: the first of

them is the Umwelt, i.e. the world that surrounds us—the biological world. The second corresponds to the Mitwelt, literally the co-world, the world shared with our fellow people. And the last of them is what is called the Eigenwelt, or self-world, and comprises the personal relations of the individual with him/herself.

The experience of the body is ambivalent. Living in one's own body is not only to ensure its ownership or to state its potency but also to discover its servitude and recognize its weakness. It represents the periodic memory of progressive decay and finitude. Health is expressed by corporal silence, by the absence of symptoms. However, at specific moments this intentionality hides itself and concentrates on itself, and the body leaves the Mitwelt to concentrate on the Eigenwelt, i.e. it is ill, or, which is the same, "deprived of all spontaneous coexistence with its body, the patient talks of it as a foreign object" [50]. In depressive states, as asserted by López Ibor and López-Ibor Aliño [51], in the presence of illness, the corporal reality of the subject becomes problematic, and his/her attention concentrates on it. In health, the body is silent or a peripheral awareness, in the words of Lhermitte [52].

The paradigm of the non-availability of the body is its illness. As Merleau-Ponty states, the illness reminds me that I haven't just got a body (*Körper; corps objectif*), but I am also a lived body (*Leib; corps phénoménal or corps propre*); it makes me painfully aware that this instrument, my body, is escaping from control and availability. "Being aware of one's body at all times is being always exposed to humiliation or ridicule and of finding consolation in domestic tasks or in chats with friends" [15].

Bodily space is thought to be the place of the self and subject to the experience of "what is one's own". It is simultaneously object and subject; it is in the world and perceives most bodies. The body represents the place of existence of the human being [54]. In fact, for Janet [55], agreeing with Ribot [56], personality is not found in the soul, it is found in the body. Consequently, it is impossible to progress in the study of personality without having previously understood the nature of possessing a body, a body that is distinct from others, being this especially significant in women, in whom the body is much more present in the construction of their subjectivity.

According to the objectification theory postulated by Fredrickson and Roberts in 1997 [57], in Western societies the female body is socially constructed as an object to be looked at and evaluated, primarily on the basis of appearance [58]. This sexual objectification that occurs whenever a woman's body, parts of it or sexual functions are separated out from her person, both in social encounters and visual media depicting them, reduces women to the status of mere instruments or, in other words, treats women as bodies and, in particular, as bodies that exist for the use and pleasure of others. The widespread and repeated exposure to sexual objectification leads to women and girls internalizing an observer's perspective of their own bodies; they come to perceive themselves as an object to be looked at and appreciated by others based on their appearance; they come to self-objectification [57].

Female morality imposes itself above all through a constant discipline that concerns the body, a pressure on clothes, beauty, forms of behaviour and looking after the body. It's the naturalization of an ethic, which includes female subservience, bowing, lowering the head, bending the body, smiling, averting the gaze, accepting interruptions and in the way women are taught to fill space, walk and adopt appropriate body positions. It is as if femininity could be summarized in the act of

lessening oneself, limiting territory and restricting movement and shifting one's body, especially in public places. Equality and respect result from learning. Men and women have to learn and interiorize these aspects to allow them to live in equality. There is, however, a violence that comes from equality. Women do not know how to behave in this system of equality. They participate in the system when they go down the street and in the face of a provocative gaze that looks into their eyes and says "you are a thing"; they avert their gaze, as a part of the program for which they are trained [6]. Women are confused, nobody has taught them how to set limits; they only avail themselves of the recipe of patience and gratitude. Humankind still does not know what it is because it does not know how to behave as a non-natural species. The violence of equality comes from men who experience the situation of equality as a continuous attack on their virility, as exemplified by "putting women in their place". This is related to the maintaining of the brother-hood system. Equality taken in the wrong way can give rise to new violence from a feminist perspective.

The body is the experience of doing, feeling, thinking and wanting, and they cannot be separated [59]. From birth, we are designed to seek relationships including the emotional component. Hence, emotions are bodily provisions. Our medium is other human beings. Everything is interconnected. Everything arises in codependency. There is no you and them, only us. The mind and the world are one. The body is the medium for experiencing the world and consequently all learning processes. In this way, the body is the medium with which I have my own world. We perceive the world from and with the body. We are embodied [60].

Some neuroscientists [61, 62] have reached the same conclusions by different routes to phenomenology and psychiatric anthropology concurring with contemporary philosophers such as Clark and Noë. Mind, body and world interact in the adaptation of the individual.

## 11.7 Body and Postmodernism

The body is a metaphor, a container, a mirror or a barrier. It is the absolute place, the small fragment of space where I am, in Focault's words, literally, embodied. "I can't move without it. I can't leave it where it is. I can go to the end of world, I can hide under the sheets, I can make myself as small as possible...it will always be there" [53]. The body has become a main topic of contemporary debate and tensions as the contemporary culture is dominated by the omnipresence of the body and the subjecting of it to models whose reproduction is almost impossible for the vast majority of the population, especially for women. Many bodies feel increasingly greater dissatisfaction with their reflection in the mirror leading them to a path, often with no return, of continuous and dangerous modification of their bodies. Like Narcissus, who stunned by the sight of himself fell madly in love with his own image reflected in water and caused his own death by throwing himself in, a trend has been encouraged toward the continuous modification of the body, making it turn out its own show in front of the mirror.

The body is the space in which living with each individual's personal identity is embodied. As Foucault states [53]:

Est docile un corps qui peut être soumis qui peut être utilise', qui peut être transformé et perfectionné. (Docile is the body which may be subjected, which may be utilized, which may be transformed and perfected.)

According to Laín Entralgo, the body is "the being of man". The problem faced by modern man was already described by Nietzsche: "The most characteristic feature of modern man is the singular contrast between an interior to which no exterior corresponds and an exterior to which no interior corresponds".

In 1976, Foucault wrote at the end of La Volenté de Savoir that sex has become "the imaginary point that each individual has to pass in order to have access to their own intelligibility, to the fullness of their body, to their identity. Intelligibility, fullness, identity. The confrontation with oneself has become a confrontation with a body from of which we cannot distance ourselves". He stated "sex has become more important than our soul; it has become almost more important than our life". As to describe the contemporary situation, it's only necessary to replace the word "sex" with "body". In our culture, the body has become more important than our soul, it has become more important than our life [45]. As was engraved on the temple of Apollo in Delphi "knowledge of oneself is the first step to wisdom". "Know yourself" is, at the same time, the cornerstone of philosophy, i.e. of a love for wisdom. It is the first rule of a life for which teaching was proposed. In the words of Heraclitus "knowing yourself has been imposed on all men". Practical knowledge appears as a female figure holding an instrument in her hand, a very valuable one at the time, one that enables contemplation and knowledge of oneself: the mirror. He alludes to the importance of the mirror to act correctly; the wise individual must know himself/ herself. The mirror also reflects the reverse of knowledge in itself, as selfcontemplation may have ill effects. This was, in Schopenhauer's words, Narcissus's big mistake [63].

In The Disciple [64], Oscar Wilde wrote that when Narcissus died, the nymphs roamed tearful as they missed his presence, and they went to the lake telling it: "You must certainly be missing Narcissus as he came every day to view himself in your mirror, in your waters". The response from the lake was the following: "yes, it's true; I miss Narcissus very much because every day when he came to look at me and to be reflected in my waters, I saw in his pupils, in his eyes, how beautiful I am". This extract reveals a narcissistic relationship where one does not see the other but oneself in the gaze of the other.

There is, on the other hand, a disdain born from the body itself as a vulnerable, corruptible and finite biological space. The disdained body as flesh, weight, a burden, makes it the spirit that vivifies, while the flesh is worthless. The world of art has used bodily distortion as a formula of expression of the modern man, as reflected in the work of painter Francis Bacon.

By not limiting itself to its physical dimensions and spreading out, the human body reaches much further from its skin covering, just like the dress and adornments that form part of the body have been incorporated and hence are a manifestation of 286 M. Sáenz-Herrero et al.

the individual itself, this being much more important in women where both the body and the body image are much more present in their identity. Care of the body and its different ornaments form a way of seducing and therefore achieving the gaze of others. Even the Neanderthals used pigments for make-up [65]. Through body art, the human body perceives the world through its senses; and there is no feeling without contact. It is through the body that the world touches us. As the poet Paul Valery said: "There is nothing deeper than skin". Artists such as Marina Abramovic say that what is corporal and suffering may be reconverted through art and performances in which the body is used as a canvas. The same occurs with the wounded bodies painted by Frida Kahlo, in which the wounds that take time to heal reinforce the artist's creativity. Kahlo was able to transform the terrible chronic pain of the wounded body into pictorial reality.

In body modification culture, bodies, used as the location for the oddest modifications and freak and grotesque culture, form an expression of postmodernism, e.g. the carnal art of Orlan, who gives her body to artistic creation. She undergoes repeated plastic surgery with the aim of presenting herself as a work of art through a chin like that of Botticelli's Venus or a forehead like the Mona Lisa's. However, this is where the relationship of medical and patient power is inverted. She takes control in progressive body transformation [65]. Artists such as the photographer Cindy Sherman have used their own bodies to portray roles that are culturally defined as female, roles that are earmarked for women in the media using images from B movies: film star, housewife, naïve girl. Films in which women are presented as vulnerable, weak and even mad. Unlike the photographers who seek locations, Sherman seeks spaces that are interior, private, domestic and categorized as female. She shows photos of the female body that are increasingly dark, grotesque and fragmented. In the 1980s, she reduced the female body to its subproducts, vomit, menstrual blood, viscera and in her photos of the following decade, she equipped her body with real and invented prosthetics [65].

De Beauvoir [13] asserts that the female body must be the situation and instrument of women's freedom and not a defining and limiting essence. This conversion process, which cannot be said to have a beginning or an end, is open to resignification. Hence, the body seems to be a set of individual and social limits. We women are fragments, pieces and incompleteness; thus, in this lack we find the origin of distress and associated psychopathology. Alluding to an original or authentic femininity is a nostalgic ideal, as philosopher Judith Butler asserts. Following de Beauvoir's theory of "one is not born a woman but one becomes one", she proposes that the current need to analyse gender is a complex cultural construction. Hegelian tradition entwines desire with recognition; the desire is always a desire for recognition and anyone of us constitutes a viable social being only through the experience of recognition. Insofar as desire is involved in social standards, this is linked to the issue of power and the person who meets the requisites of what is recognized as human versus the person who does not [24]. Female human bodies are very often disdained by others, and, as a consequence of this disdain, they are subject to abuse, ill-treatment, abasement and murder. Female desire represents a dangerous energy for the established order, and the female body finds itself between disdain and

exaltation. Many examples can be found in literature, cinema and history: the femme fatale, vamps with come-to-bed eyes, with a dark gaze, provocative clothing, the cult of romantic love and fatal destiny. The diva of this era is Marlene Dietrich in The Blue Angel. The dream of the First World War was the devil as a woman, the woman as desire, exotic and sophisticated. The Second World War saw the appearance of pin-ups, girls with big cheeks. In the 1940s and 1950s, the most representative pin-up was Rita Hayworth, who was famously slapped in a scene showing the abuse of power [65]. By dint of this type of social determinism, servitude became voluntary and ended up finding pleasure in the renunciation of itself, as in the famous case of the triumphantly beautiful but ill-starred Marilyn Monroe, whose femininity was caricaturized until she took her own life; her sensuality laid in being tragic [65]. To censure the body is to censure, at the same time, the breath, the word. The subject is subordinated through language, and an individual prefers to exist in subordination than not to exist at all [24]. The pathologization of the female body has been a reality in the history of psychology, just as women do not appear in history until the nineteenth century. Practically the whole of history "anonymous was a woman", as the writer Virginia Woolf [43] reminds us. In The Portrait of a Lady, Henry James explains:

"There is no such thing as an isolated man or woman; we are each of us made up of a cluster of appurtenances. What do you call one's self? Where does it begin? Where does it end? It overflows into everything that belongs to us and then flows back again". A kind of collage, with the hope that things endure, however divided and fragmented they may be, like any mind. The body seems to offer, in these conditions, the final anchorage point to cling onto. It is the anchorage point to be grasped as a being, to be organized, manipulated, transformed, exceeded as a person or individual in the eyes of others. This post-human perspective raises questions about certainty over identity and reassurance about oneself, which are also altered by the discovery of other experiences and other constructions of the body through the work of feminist artists (Nancy Spero, Judy Chicago, Cindy Sherman, Barbara Kruger), homosexual artists and queer culture. Queer culture, according to Beatriz Preciado [27], goes much further by suggesting that this dichotomy does not exist, without even a difference between a true femininity/masculinity and another, impostured one. All gender identity is a performance, a masquerade.

# 11.8 Body Image

Body image refers to one's perceptions and attitudes related to one's own physical characteristics, including thoughts, beliefs, feelings and behaviours [66]. This basic expression in the field of corporality was introduced by Schilder [67] in 1935, soon after the introduction of various concepts from psychoanalysis into the study of body schema. He also pointed out that this body image represents an emotional experience, as feelings are states of the self, and the self is, above all, a corporal self.

Schilder's basic idea is that "there is no perception without action". The postural model of the body is insufficient as it reflects a passive receiving subject while we can only be sure that a perception is correct when the manipulation of the object perceived is correct.

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Henri Wallon [68] sought new responses by studying the childhood origins of body awareness. According to him, the genesis of the awareness of the body is a function of the mirror, given that initially children identify the organs of others better than their own. They quickly learn their mother's breast or hands. Postural sensitivity develops from the movements the mother makes with them. Children need to be moved and positionally changed because their bodies cannot be understood to be anything but a "body of relation". The abstract and global idea of their body will not appear until they are at least 6–7 years old, when it can develop a symbolic function. Wallon attributes a leading role to the function of the baby as a tonic. When the mother takes the child in her arms, the latter becomes tense or flaccid, resistant or adaptable. Ajuriaguerra [69] goes further and develops a complete child psychopathology based on corporality, classifying children according to body tone. The body is the language between mother and baby, and when there are problems, both must search the tonic relationship and work through caresses and relaxation techniques. This first mother-child communication gives meaning to the body as a vehicle of expression of human language for the rest of adult life.

The French philosopher Merleau-Ponty, connecting to the ideas of Wallon and Ajuriaguerra, disregards the psychoanalytic components of Schilder's ideas asserting that they are insufficient as the body schema is defined not through action but through the meaning given to it, which is its function. Merleau-Ponty [50] stresses the classic Heideggerian distinction in the field of corporality and speaks of a "body in itself, a body for self and a body for others". The body's function in each sphere is, for Merleau-Ponty, the unifying element. Hence, for example, to suffer a phantom arm means to miss all the actions that only that arm could perform. The body's practical field is conserved even when the anatomical one no longer exists.

Phenomenology has considerably enriched our knowledge of the experience of the body by enabling Cartesian dualism to be overcome. Setting out from the subject's relationship with its world through the immediate contents of conscience that are phenomena, the body acquires a very special nature. This is the medium in relation to the world, but even more, it is the very condition of the experience lived. The body schema is the form of expressing that my body is in the world. There is no possibility of distinguishing the body as an object that I have from the body as the subject that I am. Marcel [47] expresses this in terms of "I am and I have body" and Marías [70] as "I am installed in my body", that is, I am corporeality.

Until that moment, Cartesian dualism proposed that human nature was the union of the body (Res extensa) and the soul (Res cogitans), being the body a mere object, giving no place for any embodied cognition. For phenomenology, such a distinction is an abstraction, an intellectual construction, as the phenomenon we experience is of a unitary nature. Corporal experience is accompanied by the experience of a here and now, of oneself in the world, i.e. it is closely linked to the experience of time, of space, of the self and of the world.

Body and world form an entirety; quoting Ortega y Gasset, I am me and my circumstance [71]. I am someone corporal, linked for this reason, through corporality, to worldliness. I am in my body and I am in my world [72]. Corporality is worldly, directed toward the world, related to it from its origin. If the world and the body

cannot be separated and if the body is essentially worldly, it has, therefore, to participate in the world's nature, just like the eye participates, in Goethe's words, in the sun's nature [40]: "Wär nicht das Auge sonnehaft/Die Sonne könnt es nie erblicken"; "were not the eye of the nature of the sun/how could it behold the sun".

Therefore, motor functions are seen in their meaning, performance and expression. The process by which the brain constructs a body schema requires the integration of exteroceptive, proprioceptive and interoceptive information, with each other and with the executive activities of the movement associated with it, achieving this way a symbolic content that enables a harmonious and effective corporal experience and functioning [73].

In this process are involved the so-called mirror neurons, a group of neurons, both motor and sensorial, widely spread in some brain areas, which have been proposed to be involved in the unconscious understanding of others mental states. When we witness a given facial expression and this perception leads to understanding that expression as a particular affective state, we don't just accomplish this type of understanding only through explicit inference from analogy. The other's emotion is first understood by means of embodied simulation [74]. Unconscious and automatically, we mentally re-enact what the other is doing, "as if" our brain recreated the neural processes being conducted in the other's mind. This has been postulated to be at the base of empathy, among others, being thus at the base of the foundations of social relationships.

The cognitive–emotional genesis of the body image is learned and acquired through life. With the passage of time, the neurobiological mechanisms involved in body image are strengthened by experience, principally in childhood and adolescence, a time when the neuronal networks making this possible are established. For this reason, every individual has a different concept of self-body image, which forms part of his/her personal experience [44]. The body remembers everything that it has experienced at any time and all is stored.

Somatic markers are emotional and of a different nature, aware or unaware, associated with the brain's representation of the body state to modulate the organism's response beyond mere cognitive aspects. This involves emotional processes that anticipate the rational process, and these are established according to past emotional experiences, a concept introduced by Damasio [73].

The representation of oneself gradually develops from the age of approximately a year and a half [75], when a notion of "I" [76] and "I that I know" is acquired [77]. The visual recognition of oneself is the most frequently studied, but there are other important aspects such as emotions, especially embarrassment [78], empathy [79] and altruism [80]. The recognition of oneself is connected with autobiographical memories and with the ability to imitate [81]. Pretense and the denial of oneself are early signs of the ability to understand mental states, that is, of the presence of a theory of the mind [82].

For Schilder [83], body image transcends the knowledge of one's own physical space in which corporal activity takes place to locate itself in a different temporal and mental space that enables one to be able to detach, imagine, symbolize and even distort the schema itself.

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Slade [84] describes body image as the picture we have in our minds on the size, the shape and the structure of our body and our feelings toward each of its constituent parts.

The ideal of the male body image has remained unaltered since the Greeks, with Michelangelo's David of the Renaissance continuing to construct the ideal of the male image in the present-day collective imagination.

However, in the case of women, a great transformation in the ideal of beauty has occurred. Beginning with the prehistoric Venus of large proportions, through Titian's fleshy Renaissance Venus, a progressive slimming of the body image that started in the nineteenth century with chlorotic women has been carried forward to proportions that are impossible to reproduce nowadays without attaining a state of excessive or even extreme thinness while retaining a large bust. Despite their impossibility, many women try to align with these sociocultural ideals, failing to achieve them. This perceived discrepancy between a person's assessment of their actual and ideal body frequently results in body dissatisfaction, which has been related to consequences for both physical and mental health, including depression, anxiety, low self-esteem and eating disorders. Research suggests that women and adolescent girls experience higher levels of body dissatisfaction than their male counterparts. The association between media exposure and body dissatisfaction and disordered eating among women and girls has been supported by extensive research. However, while mass media is considered to be the most influential and pervasive cause of body dissatisfaction, recent research demonstrated that social networks use is significantly linked to body image and eating concerns. As the use of social networks has become an integral part of contemporary society, it needs to be taken into consideration for further research [58].

Recent research has expanded the focus of eating disorders to include body image, body dissatisfaction and channels like the thoughts and cognitions on one's own body affecting body image and the image that one possesses of oneself. Once cognitive schemas on the body are formed, they are maintained firmly and may give rise to distortions in the body image.

#### 11.9 Conclusions

We are embodied. The body forms a nuclear part of our being. Through this review, we tried to present how anthropological and sociological aspects influence on the ways in which the body is presented under the influence of history and culture. From the corporeal experience, individuals, and especially women, possess a representation of their body in which it is an instrument, an object for performing various functions of a social, reproductive and productive nature. Maternity and corporal realities are constituent elements of an identity marked by instrumentalization.

Although much more research is needed and we are aware that many of these theories are speculative, it seems necessary to include the gender paradigm in the psychopathology of the corporality that represents one of the pillars of the construction of our being in the world. The body seems to offer, under these conditions, the

final anchorage point to cling onto. It is the anchorage point to be grasped as a being, to be organized, manipulated, transformed, exceeded as a person or individual in the eyes of others.

#### References

- 1. Martin CA. Antropología del género. 3rd ed. Valencia: Catedra; 2012.
- 2. BBC; November 2013; [quoted in October 2018]. Germany allows 'indeterminate' gender at birth. http://www.bbc.co.uk/news/world-europe-24767225.
- Furtado PS, Moraes F, Lago R, Barros LO, Toralles MB, Barroso U. Gender dysphoria associated with disorders of sex development. Nat Rev Urol. 2012;9(11):620–7.
- 4. Dio BE. La sexualidad femenina. De la niña a la mujer. Barcelona: Paidós; 1997.
- 5. Bance C. Anthropology rediscovers sexuality: a theoretical comment. Soc Sci Med. 1997;33(8):875–84.
- 6. Valcárcel A. Feminismo en el mundo global. Valencia: Catedra UPV; 2010.
- 7. MacCormack C, Strathern M. Nature, culture and gender. New York: Routledge; 1990.
- 8. Mead M. Male and female. A study of the sexes in a changing world. New York: Morow eds; 1949/1952.
- Marylin SM. An anthropological perspective. In: Harris O, Young K, editors. Feminist anthropology. Barcelona: Anagrama; 1979.
- International Society of Asthethic Plastic Surgery. June 2017; [quoted in October 2018]. 2016
   Global Statistics. https://www.isaps.org/medical-professionals/isaps-global-statistics/.
- 11. Badinter E. The conflict. How motherhood undermines the status of women. France: Flammarion; 2010.
- 12. Sanyal MM. Vulva. Barcelona: Anagrama; 2012.
- 13. Beauvoir S. The second sex. New York: Vintage Books; 1952.
- 14. Foucault M. Histoire de la folie á lâge classique. Paris: Gallimard; 1972.
- 15. Bordieu P. Masculine domination. Stanford: Stanford University Press; 2001.
- 16. Heidegger M. On the way of being. New York: Harper and Row; 1971.
- 17. Heidegger M. Existence and being. Washington, DC: Henry Regnery; 1949.
- 18. Griffith JL, Elliot GM. The body speaks: therapeutic dialogues for mind-body problems. New York: Basic Books; 1994.
- Maturana HR, Varela FJ. The tree of knowledge: the biological roots of human understanding. Boston: Shanmbala; 1987.
- 20. Gadamer HG. Philosophical hermeneutics. Berkley: University of California Press; 1976.
- 21. Devaux M. Feminism and empowerment: a critical Reading of Foucault. Fem Stud. 1994;20:223–42.
- 22. Maffia D. Hacia un lenguaje inclusivo ¿Es posible? Jornadas de actualización profesional sobre traducción, análisis del discurso, género y lenguaje inclusivo. Belgrano: Universidad de Belgrano; 2012.
- 23. Foucault M. History of sexuality. London: Penguin Books; 1992.
- Butler J. Gender trouble. Feminism and the subversion of identity. New York: Routledge; 1999.
- Nanda S. Neither man nor woman: the Hijras of India. Belmont, ON: Wadsworth Publishing;
   1998.
- Hester D. Eunuchs and postgender Jesus: Matthew 19:12 and transgressive sexualities. J Study New Testam. 2005;28(1):13–40.
- 27. Preciado B. Manifiesto contrasexual. Opera Prima: Barcelona; 2002.
- Butler J. Subjects of desire: Hegelian reflections in twentieth century France. New York: Columbia University Press; 1999.
- 29. Newton E, Walton S. The misunderstanding. Toward a more precise sexual vocabulary. In: Vance C, editor. Pleasure and danger. Boston: Routledge; 1984.

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TedxTalks; January 2013; [quoted in October 2018]; Baptiste B. Inventing the body. https://www.youtube.com/user/TEDxTalks.

- 31. Beltz AM, Blakemore JEO, Berenbaum SA. Sex differences in brain and behavioral development. In: Rubenstein JLR, Rakic P, editors. Neural circuit development and function in the brain. New York: Academic Press; 2013. p. 467–99.
- 32. Berenbaum S, Beltz A. From genes to behavior through sex hormones and socialization: the example of gender development. Twin Res Hum Genet. 2018;21(4):289–94.
- Rubin G. The traffic of women: the political economy of sex. Ann Arbor: University of Michigan; 1975.
- 34. Butler J. Undoing gender. London: Routledge; 2004.
- 35. Adichie CN. We should all be feminists. Vintage, 2014. In: First presented as a TED Talk given in the United Kingdom at TEDxEuston, in 2012. p. 10.
- 36. Plato, Timaeus Dialogue; Stanford Encyclopedia of Philosophy; 2005.
- 37. Mithu M. Sanyal. Vulva La revelación del sexo invisible. Barcelona: Anagrama; 2009.
- 38. Varela J, Álvarez-Uria F. Madrid: Siglo XXI; 2008.
- Didi HG. Invention of hysteria: Charcot and the photographic iconography of the Salpêtriére. Cambridge, MA: MIT Press; 2003.
- 40. López-Ibor J, et al. Percepción, vivencia e identidad corporales. Actas Esp Psiquiatr. 2011;39(Suppl. 3):3–118.
- 41. Plath S. The bell jar. London: Faber and Faber Eds; 1966.
- 42. BBC, February 2013 [quoted in October 2018], Sylvia Plath: Jillian Becker on the poet's last days. https://www.bbc.com/news/magazine-21336933.
- 43. Woolf V. A room of one's own; 1929.
- 44. Jaspers K. Psicopatología general. Editorial Beta: Buenos Aires; 1977.
- 45. Colina F. Escritos psicóticos. Madrid: Dor; 1996.
- Ortega y Gasset J. Vitalidad, alma y espíritu. Obras completas. Madrid: Revista de Occidente; 1946.
- 47. Marcel G. Étre et avoir. Editorial Montaigne: París; 1955.
- 48. Sartre JP. Being and nothingness. New York: Washington Square Press; 1943.
- May R. Existencia. Nueva dimensión en psiquiatría y psicología. Madrid: Editorial Gredos; 1977.
- 50. Merleau-Ponty M. Fenomenología de la percepción. Editorial Península: Barcelona; 1975.
- 51. López Ibor JJ, López Ibor Aliño JJ. Cuerpo y corporalidad. Madrid: Editorial Gredos; 1974.
- 52. Lhermitte J. L'image de notre corps. Paris: Nouvelle Revue Critique; 1939.
- 53. Foucault M. Utopian body. Cambridge, MA: Sensorium, MIT Press; 1966.
- Pera C. Pensar desde el Cuerpo. Un ensayo sobre la Corporeidad humana. Madrid: Triascatela;
   2006.
- 55. Janet P. L'evolution psychologique de la personnalite'. 1st ed. Edition Chahine: París; 1929.
- 56. Ribot T. Les maladies de la personnalité. Felix Alcan: París; 1884.
- Fredrickson BL, Roberts T. Objectification theory: toward understanding women's lived experiences and mental health risks. Psychol Women Q. 1997;21:173–206.
- 58. Holland G, Tiggemann M. A systematic review of the impact of the use of social networking sites on body image and disordered eating outcomes. Body Image. 2016;17:100–10.
- 59. Zubiri X. Sobre el hombre. Madrid: Alianza; 1986.
- 60. Leder D. The absent body. Chicago: The University of Chicago Press; 1990.
- Varela FJ, Thomson E, Rosch E. The embodied mind. Cognitive science and human experience. Cambridge: MIT Press; 2004.
- Damasio AR. Descartes error: emotion, reason and the human brain. New York: G.P. Putnam; 1994.
- 63. Schopenhauer A. El arte de conocerse a sı' mismo. Madrid: Alianza; 2007.
- Wilde O. Poemas en prosa. Madrid: Aguilar; 1962. Poems in Prose. The Fortnightly Review 1894.
- 65. Baecque A. El cuerpo en el cine en Historia del cuerpo vol III. Madrid: Taurus; 2006.

- 66. Cash TF. Body image: past, present, and future. Body Image. 2004;1:1–5.
- 67. Schilder P. Imagen y apariencia del cuerpo humano. Editorial Paidos: Buenos Aires; 1977.
- 68. Wallon H. Les origins du caractére chez l'enfant. París: Presses Universitaires de France; 1930.
- Ajuriaguerra J. Evolución y trastornos del conocimiento corporal y de la conciencia de sí mismo. Manual de Psiquiatría Infantil. Toray-Masson: Barcelona; 1976.
- 70. Marías J. Persona. Madrid: Alianza; 1996.
- Ortega y Gasset J. Meditaciones del quijote o experimentos de nueva España. In: Obras Completas. 41st ed. Madrid: Revista de occidente; 1914/1957. Tomo II. p. 322.
- 72. Marías J. Antropología metafísica. Madrid: Revista de Occidente; 1970.
- 73. Damasio AR. The Somatic marker hypothesis and the possible functions of the prefrontal cortex. Philos Trans R Soc Lond Biol Sci. 1996;351(1346):1413–20.
- 74. Gallese V. Empathy, embodied simulation, and the brain: commentary on Aragno and Zepf/ Hartmann. J Am Psychoanal Assoc. 2008;56(3):769–81.
- Lewis M, Brooks-Gunn J. Social cognition and the acquisition of self. New York: Plenum; 1979.
- Lewis M. Aspects of the self: from systems to ideas. In: Rochat P, editor. The self in early infancy: theory and research. Amsterdam: North Holland; 1995.
- Rochat P, editor. The self in early infancy: theory and research. Amsterdam: North Holland; 1995.
- Lewis M, Sullivan MW, Stanger C, Weiss M. Self development and self-conscious emotions. Child Dev. 1989;60(1):146–56.
- Bischof-Köhler D. Self object and interpersonal emotions. Identification of own mirror image, empathy and prosocial behavior in the 2nd year of life. Psychol Z Angew Psychol. 1994;202(4):349.
- Zahn-Waxler C, Radke-Yarrow M, Wagner E, Chapman M. Development of concern for others. Dev Psychol. 1992;28(1):126–36.
- 81. Asendorpf JB. Self awareness, other awareness and secondary representation. In: Meltzoff AN, Prinz W, editors. The imitative mine: development, evolution and brain bases. Cambridge studies in cognitive perceptual development. New York: Cambridge University Press; 2002.
- Leslie A. Pretense and the representation revisited. In: Stein N, Bauer P, Rabinowitz M, editors. Representation, memory and development. Mahwah, NJ: Lawrence Album; 2002. p. 103–4.
- 83. Schilder P. The image and the appearance of the human body. Studies in constructive energies of the psyche. New York: International University Press; 1950.
- 84. Slade PD. Body image in anorexia nervosa. Br J Psychiatry. 1988;153(2):20-2.



# **Body and Hysteria: Dissociated Body**

12

Agueda Rojo-Pantoja

#### **Abstract**

There is a recurring confusion about the terms and names used to describe dissociation and dissociative disorders. By this we mean somatic disorders, conversion disorders, dissociative disorders, Briquet syndrome, depersonalization disorder or split personality disorder, to mention just a few, without clear-cut boundaries among these diagnostic entities.

In order to describe the psychopathology of dissociative symptoms, it is useful to know the genesis of the disorder, the cultural-historical context that saw its birth and how it has evolved to the present day. We will be using the same term to refer to different clinical syndromes according to the age being dealt with.

It is common to relate dissociation with hysteria and hysteria with women. Today it is a well-known fact that these associations are not always clear. The idea of dissociation was coined by Pierre Janet in France in the late nineteenth century and was used to diagnose female patients who for the most part presented with hysteria, in a historical period and in a city in which hysteria was related solely to women. Prior to Janet, Charcot had already put forward a psychological explanation for hysteria, with traumas as triggers and somatic symptoms as the most significant manifestations. Freud later challenged the conversive mechanism with the dissociative one as an explanation for hysteria, and both terms have found their way into modern-day psychopathological descriptions, bringing about a chaos in terminology. We will try to shed light on the confusion created by the different terms and also try to prove that there is insufficient evidence to support the idea that dissociative disorders are predominantly found in women.

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#### 12.1 Introduction

Modern-day psychopathology keeps dissociation and dissociative symptoms within the bounds of the psychopathology of consciousness. It defines dissociation as a restriction of the field of consciousness, which denotes a disruption in the normal and continuous flow of ideas, thoughts, perceptions, etc., that brings about a split between cognitive and perceptive elements and behavioural ones, the behaviour adopting automatic modes [1]. All of the processes involving a restriction of consciousness have the following psychopathological elements: drop in the levels of alertness and attention, spatial and temporal disorientation, automatic behaviour, post-critical amnesia, absent delirium and partially preserved sensory reactivity. Other symptoms that are considered dissociative are the dissolution of the self or split personality, dissociative amnesia, depersonalization, derealization, auditory hallucinations [2], trance states [3] and somatoform symptoms.

We owe the term dissociation to Pierre Janet, since its genesis can be found in his désagrégation psychologique [4] and also to the reformers of the eighteenth-century associationism, such as Maine de Biran or Herbart, because they provided Janet with a conceptual framework, which was later elaborated upon by Sigmund Freud, another key figure in the emergence of the new concept.

Moving on we find the fin-de-siècle spirit, which reached its zenith in cities like Paris and Vienna at the turn of the century. The artists in Paris were familiar with Charcot's theories about nervous diseases. Neurasthenia, whose root cause was considered to be the hectic pace of life in the city, became a fashionable affliction. Psychiatry had a strong influence on the spirit of the day, and there is a considerable overlap between the patients described by psychiatrists and the characters portrayed by novelists and playwrights.

Ellenberger [5] cites similarities between Janet's Irene (1907) and Zola's Pauline, from his work *La joie de vivre*, between Hofmannsthal's Elektra and de Breuer's Anna O and between Freud's Dora and the characters in the short stories by Schnitzler. In this cultural-historical context, we can find a predilection for hysteria as the diagnosis for the women of the day. Consciousness and its alterations become increasingly important and inform the different conceptions that will illuminate psychology, psychopathology and clinical psychiatry [6] throughout the twentieth century.

In 1875 Eugène Azam spoke for the first time of the "French split personality", embodied by Félida. He first described the case as "temporal amnesia", later calling it "double awareness" and finally "split personality". So many cases of split personality were published during the nineteenth century that Ellenberger saw the need for a classification. It is important to point out that all of the cases involved women, Hélène Smith, Estelle, Mary Reynolds or Miss Beauchamp, and that only one man is mentioned, Ansel Bourne, treated by Williams James. An interesting point to debate is whether the proliferation of split personalities among members of the female sex was an epidemiological reality or simply the result of the cultural trend in vogue at the time. Two centuries later we can see how this mental disorder has evolved over time. Today its prevalence seems to be greater in the USA than in

Europe, and according to the latest studies cited in the bibliography, contradictory information exists about its prevalence among one sex or the other, undermining the notion that women are more prone to suffer from the condition.

But dissociation not only manifests itself in split personality, today called multiple personality disorder, but also underlies different mental disorders, with different psychological and physical manifestations. Dissociation not only includes dissociative amnesia, depersonalization, derealization and fragmented identity but also, according to Pierre Janet and other psychiatrists working during World War I, a poor integration of somatomorphic components [7]. Different authors [7] have proposed the name psychological dissociation, instead of somatomorphic dissociation, to illustrate that many somatic symptoms have a dissociative mechanism at their core.

The extremely high number of women among those affected by these types of disorders in the nineteenth century must be understood as a cultural bias pertaining to the age. In this century the role of the female body was limited to maternity. Women were considered weak and prone to suffering from mental disorders [8]. Many women during this century were labelled as chronically sick [9]. In all likelihood girls and women got sick in no small measure due to the horrible conditions imposed upon them, but few doctors at that time would have seen social factors as possible aetiological causes. Ross [10] reminds us of the pathological countertransference towards "hysterical women" at the Salpetriere and states that this attitude has been repeated in the twentieth and twenty-first centuries towards dissociative identity disorder. With the arrival of psychoanalysis and a new interest in female sexuality, the famous cases of Anna O and Dora appeared, treated by Freud, and these women were considered "hysterical, delirious or depressive" [9]. Once again discrimination was an important factor in the treatment of certain diseases, which were considered almost exclusive to women. The stress of modern life was cited as an aggravating factor that made nervous diseases in women even worse, since women were generally perceived as more delicate and sensitive.

But whether there is a preponderance of dissociative disorders among women over men is something that has to be ascertained. We will try to use all the facts and figures known at present to see whether the disorder occurs more predominantly in one sex or the other. We think it is important to find an explanation for the statistical data that can be found for different disorders and to elucidate if these depend on factors specific to women or factors determined by culture.

# 12.2 Janet and Systematic Anaesthesias

There is little doubt that the term dissociation had its origin in Pierre Janet, more precisely in his idea of désagrégation, at a very specific time and place in history, the French fin-de-siècle. Sigmund Freud also deserves a mention, because it is precisely around this time when references to the concept of dissociation start appearing in his work. He will soon drop the idea in favour of repression, and his theories will move in a new direction, leaving hypnosis behind and embracing the new ideas of

psychoanalysis. Both authors had conflicting views as to which was the origin of dissociation, but their studies overlapped at different points, often leading to the same conclusions.

Different concepts start appearing in the works of Pierre Janet (suggestion, subconscious, narrowing of the field of consciousness, psychological misery, fixed ideas) that will lay down the foundations and blaze the trail for his désagrégation psychologique. His greatest work is *L'automatisme psychologique* (1889), the result of the research he carried out in the lab of Le Havre hospital, in which he expounds his theory of disaggregation [4].

It was thanks to his clinical observations of patients, and partial catalepsies, that Janet came up with the idea of partial consciousness, the dissociation of the content of consciousness in different compartments. He described women who performed actions subconsciously, that is to say "actions that had all the features of a psychological fact except one, which is that the subject is unaware of what he is doing in the moment he is doing it" [4].

Psychological automatism does not direct all conscious thinking but only a small group of phenomena partially separated from the overall consciousness of the individual, which continue to act of their own accord and in a different manner. These partial automatisms have as their simplest form of expression partial catalepsies and suggestions by means of distraction.

For Janet ideas develop into acts. It is no coincidence that his psychological automatism should have carried the subtitle "Experimental-psychological essay on the inferior forms of human activity" [4]. Distraction, according to this author, seems to split the field of consciousness into two parts: one which remains conscious and another that the subject seems to be unaware of. The distraction would be equivalent to an anaesthesia, by means of which we can suggest acts but also hallucinations. While the distracted consciousness is occupied with other ideas, the suggested act is performed without the subject knowing about it.

By means of suggestion, Janet discovers that he can suppress certain sensations, producing in the subject partial blindness or deafness. A suggestion of a negative hallucination or systematic anaesthesia was used. The first term came from Bernheim (1886) and the second from Binet and Fére, the latter seeming more accurate to Janet, since he viewed the phenomenon as analogous to the systematic paralysis of movement [11].

Janet's understanding is that during conscious perception of sensations, there is an operation in two stages. First there is a confluence of all of the sensations coming from the different senses, and then there is an active synthesis of these sensations as they cluster together and aggregate themselves to a given perception. It so happens that in the "distracted hysterical" [4] subject there are a set of sensations which during the second operation escape from consciousness. They cannot be linked to the personality of the subject, and therefore, the self is not aware of them. Synthesis is weak and restricted.

Janet considers "systematic or even general anaesthesia an injury, a weakening, not of sensation, but of the ability to synthesize sensations rendering a personal perception, all of which implies a true disaggregation of psychological phenomena" [4].

We can see that this initial concept of dissociation, Pierre Janet's psychological disaggregation, is a concept that stems from the analysis of somatic phenomena, partial catalepsies and systematic anaesthesia and that it describes "the dissociated body" of sick people, generally hysterical women. Even in the prologue to his philosophy thesis, psychological automatism, he cites the names of four women, Léonie, Lucie, Rose and Marie, who were the women that Janet considered as having "the conditions of a good psychological experience" [4]. Later, in 1898, Janet [12] published *Névroses et idées fixes*, in which he gathered all of the articles he published between 1891 and 1897 on the subject of different psychopathological disorders and their therapy, and which were the result of his work in the ward of Charcot in La Salpêtrière, treating hysterical patients, among whom were Madame D., Isabelle, Marcelle, Justine, Madame A., etc. One of the few references to male patients is the case of Achilles, who suffered from manifestations of demonic possession.

"It is undeniable that what gave hysteria coherence over a long period of time was its exclusively female nature" [13]. Pearce [14] outlines a remarkable text of Thomas Sydenham (1624–1689), a predecessor of Charcot who says about hysteria that women "are rarely quite free from it; those men who lead a sedentary or studious life are subject to the same complaint..., Men are less subject to it than women because of their more robust habit of body". Also, in the seventeenth century, Thomas Willis and Lepois thought that hysteria might be applicable to men "given its lodging in the nervous stock, spanning the brain and the spinal cord", remembering the prevalent theory of sympathies.

Up until the twentieth century, three possible origins for hysteria were considered, the uterus, the brain and the nerves. The first option justified that only women should suffer from the condition, but later on its origin was generally thought to be located in the brain and owing to the analogy between crises of hysteria and epileptic convulsions, it was determined that there had to be only one organ involved in the pathology. This is how the concept of hystero-epilepsy came into existence, consecrated by the Charcot school.

In this fin-de-siècle in París, hysteria continued to be a condition exclusively related to women. Records detailing manifestations of hysteria were always connected with female patients. It was Charcot himself, however, who demonstrated that hysteria was also a male affliction. One of his students, professor Pierre Maire, said to his teacher: The most salient feature of Charcot's work on the subject of hysteria, the main formulation that will not be lost and that will serve as a guideline to future generations of doctors, is his demonstration that male hysteria exists [15].

We cannot forget the historical context in which this shift to male hysteria took place. The most important phenomenon in the industrial world of the nineteenth century was the railway, which can be considered, in the words of Hacking, "the epic symbol of the psychologizing of trauma" [16]. The railway gave the very idea of accident its modern meaning, that is, among other things, that something can happen randomly or without apparent cause. The term railway spine appears, coined by John Eric Erichsen, to refer to those symptoms that did not match any recognizable physical injury. Three years later Russel Reynolds [16] tries to demonstrate that

certain disorders such as paralysis, spasms or other alterations of the sensations might depend on the morbid state of a sole idea, or an idea together with an emotion, and such a formulation cannot elude being compared to hysteria. This syndrome was a chance for Charcot to turn hysteria into potentially male. Gynaecologists and obstetricians claimed this territory as their domain, so the best way to take the disease away from the gynaecologists was to declare that it belonged to both sexes. Up to then male hysteria was recognized but within the context of an "effeminate" [16] personality. Charcot [17] in his lessons on the disease of the nervous system (1887) discussed the symptoms that Russel Reynolds had described, provoking, by means of hypnosis, the symptoms in a male subject whose masculinity was beyond question. Thus "memory, hysteria, hypnosis and physical trauma were closely linked together in the lectures by Charcot" [17].

After having worked for 6 or 7 years in Le Havre, Janet [18] arrived at La Salpêtrière and followed the teachings of his master Charcot, which ended with his thesis in medicine L'état mental des hystériques, in which he outlined and completed his studies on the subject of hysteria. According to López Piñero and Morales Meseguer [19], the historical foundations of Janet's initial thinking could be traced back to his being a student first of Ribot and then of Charcot. And it is precisely Charcot's contributions on fixed ideas, as core to certain neuroses, what formed the starting point of Janet's theory of dissociation. In his work L'état mental des hystériques, the author explains the existence of purely somatic phenomenology whose aetiology is psychological, and Charcot is the first one to link these physical symptoms with traumatic phenomena. According to Janet hysteria is a mental illness in which there is cerebral stress and also very vague physical symptoms. There is a weakening of the field of consciousness which prevents certain sensations and images from being perceived, and they remain beyond the scope of personal perception and that lack of synthesis enables parasite ideas to form, and since these are completely isolated from the control of personal consciousness, they manifest themselves as disorders in the physical appearance. These parasite ideas are the germ of Janet's fixed ideas, which are the cause of mental accidents in hysterics and were the way Charcot explained traumatic hysteria.

Well, gentlemen: thanks to recent findings in the science of hypnotic neurosis, we have been able to intervene to a certain extent, and advance experimentation in the study of cases of this nature. We know that, in individuals in a state of deep hypnosis, it is possible to give birth to, by means of suggestion and intimidation, an idea, a coherent group of associated ideas, which settles in the mind in a similar way to a parasite, becoming isolated from everything else, and which can translate externally in corresponding motor skill phenomena [17].

Charcot devotes himself to the study of hysteria, which affects not only women but also men and children. It is a disease with multiple symptoms such as contractions, paralysis, anaesthesias, convulsions, hallucinations or deliriums. From 1878 onwards he becomes interested in hypnosis, a method by means of which he can provoke in his patients the symptoms of hysteria, and he defends that hypnosis and hysteria are only possible in people with weak and degenerate nervous systems.

Charcot is criticized by Liébeault and Bernheim who deny there is a link between hypnosis and hysteria and defend that the prerequisite that is necessary for hypnosis to be performed is suggestibility and not the mental disease. After this attack Charcot begins his work on the psychologizing of hysteria, and without forgetting its neurological grounding, he proposes a psychological explanation, admitting personality disorders caused by traumas as a triggering factor in hysteria. This approach permits a therapy to be developed, and such a therapy would be devised by two of his disciples, Freud and Janet [20].

At the end of the nineteenth century and beginning of the twentieth century, the role played by emotion in the triggering of hysteria became controversial. According to Janet past traumatic events that "were forgotten" remained active at the subconscious level forming fixed ideas, endowed with a life of their own in a dissociated consciousness. From Janet's point of view, emotion produced a state of dissociation, narrowed the field of consciousness and enabled the fixed idea to settle. From Freud's point of view, however, emotion, because of its charge of excitation, submits the body to an overcharge that it is not able to get rid of through the normal channels of abreaction (release of emotional tension).

#### 12.3 Freud and Conversion

In the Preliminary Communication of 1893, Freud and Breuer extend to all hysteria the pathogenic formula proposed by Charcot for hystero-traumatic paralysis.

Freud describes in this work two psychological operations in the process of traumatic neuroses [21]. First is a mechanism of dissociation, by means of which there is a rupture in the association between a function of the body and the rest of its psychological activity, and the second is a Clivage (Spaltung) which would keep this separation or diversion completely apart, to the point it becomes unbridgeable, leaving all these dissociated phenomena inaccessible to any form of association. In order for these mechanisms to kick in, there must be a charge of intense affective value. The difference between Janet and Freud's understanding regarding this dissociation is that the former explains it as a result of a deficit in the synthesis function or a narrowing of the field of consciousness, while the latter links it to the affective charge.

For Freud the cases of male hysteria described by Charcot could be paradigmatic for female hysteria, because it is in women and in a decidedly female world where he creates his theories. In these cases, the subjects suffered a trauma, a railway accident, which made them feel terrified, while in hysterical women experiences which could be considered traumatic could be found as content in their attacks, but it was not the memory that was in itself traumatic, rather, it had happened in a moment of predisposition, and that is the reason why it became a traumatic memory. Freud's understanding is that this memory is unconscious, meaning it can be found in a second state of consciousness [22].

Freud assumes that the symptomatic complex of hysteria justifies the hypothesis of a dissociation of consciousness, with separate psychic groups being formed, but he does not share the views that were current at the time about the origin of such

dissociation. For Janet dissociation was a primary feature of hysteria and was dependent on a genetic weakness in the capacity for psychical synthesis, which meant degeneration in hysterical individuals unavoidable, a hypothesis that is not shared by Freud. At the beginning this author was in agreement with Breuer's "hypnoid states".

The split of consciousness, as remarkable as double consciousness, in well-known classic cases, exists in a rudimentary way in all hysteria: therefore, the inclination to dissociate, and along with it, the emergence of altered states of consciousness, which we will summarize under the name of hypnoids, would be the fundamental phenomenon underlying neurosis [23].

The hypnoid states are singular states of consciousness, of dreamlike qualities, with a diminution in the associative faculty. Any representation emerging from one of these hypnoid states is excluded from normal associative connections, broke off from the remaining contents of consciousness, and as a consequence, dissociation appears, which is acquired and not primary [6].

In the aforementioned Preliminary Communication, the authors defend the idea that traumatic memories retain all of their emotional charge, and the same as a "foreign body" exert an influence on personality, a hypothesis that was backed up by the famous case of Anna O.

It will take Freud a long time to leave Breuer's theories behind and formulate his concept of "conversion" in the so-called defence hysterias. Unlike Janet, who considered the dissociation of consciousness one of the defining features of hysteria, Freud [24] (1894) considered the capacity for conversion one of the defining features.

In hysteria, the unbearable representation is rendered harmless by transforming the magnitude of stimulus into somatic excitations, a process for which we propose the name of conversion. Conversion can be total or partial, and it happens to the motor or sensory innervation more closely linked in one degree or another to the traumatic event. The mnemic footstep does not disappear because of it, but forms here onward the node of a second psychical group [24].

His theory explaining hysteria and its evolution can be traced in the medical histories of four of his patients, all of them women, from Breuer's hypnoid state up to his concept of repression [6]. One can see the transition from the hypnoid hysterias of Anna O and Katherina to the defence hysterias of Elisabeth and Lucy, in which the terms dissociation and repression converge, although this is always seen as a defence mechanism.

The concept of repression appears in Freud's work (1894) for the first time in the neuropsychosis of defence [24] and on numerous occasions later on in his *Studies on Hysteria* (1895) [23]. Freud explains that the "dissociation of the contents of consciousness (the result of the act of repression) is a consequence of the volition of the patient, being set into motion by an effort of will power, whose motive can be determined" [24]. "I viewed the psychical spilt as a result of the process of repulsion, that I then called defence, and later on, repression" [24].

The growing importance of psychoanalysis, subsequent to the *Studies on Hysteria* by Breuer and Freud, made the concept of dissociation fall into discredit, and it was ultimately replaced by the model of repression. Both Freud and Janet

believed that psychological trauma played an important role in the forming of symptoms, but with the advent of Freud's concept of defence, the psychoanalytical theory broke away from the theories about dissociation current at the time, and the popularity of what had been one of the most characteristic theories of the late nineteenth century and early twentieth century dropped until all interest in it all but disappeared [25].

# 12.4 Dissociation and Conversion in Modern-Day Classifications

The concept of dissociation found in the work of Pierre Janet does not refer to the same idea found in the work of Sigmund Freud, as we have already seen in this brief analysis of its conceptual and historical evolution. After the French fin-de-siècle, the term was used to describe psychopathology in a very different nosologic field, that of psychosis, bringing about a dramatic change in the understanding of the term. The main goal of this study of dissociation and the dissociated body is, however, concerned with the fact that the notions of Pierre Janet have provided a framework for modern-day diagnostic manuals, both the DSM in the USA and the ICD in Europe [26]. In the changes that were proposed for the DSM-IV, we can already find the term "dissociative identity disorder" (300.14), instead of "dissociative personality"; "dissociative amnesia" (300.12), instead of "psychogenic amnesia"; or "dissociative fugue" (300.13), instead of psychogenic fugue. All of these terms correspond with manifestations that can be explained by means of Pierre Janet's dissociation.

Pierre Janet defined hysteria as a form of mental depression characterized by the narrowing of the field of personal consciousness and a leaning towards the dissociation and emancipation of the systems of ideas and functions that make up personality [27], these systems of ideas and functions belonging either to the psyche or the body.

Classically there have been different diagnostic visions between American and European psychiatry. The former has avoided the somatic manifestations of the dissociative disorders, in such a way that the DSM-III-R defined the fundamental feature of dissociative disorders as "a disorder or alteration in the integration of functions connected with identity, memory or consciousness" [27] and in the DSM-IV [28] it was added that there could also be a disorder in the perception of the environment. We can see that in these diagnostic systems the somatoform symptoms are not considered of a dissociative nature but are labelled as a somatization disorder, pain disorder, conversion disorder, sexual disorder or dysmorphic body disorder. In stark contrast, the International Classification of Diseases, the ICD-10 does contemplate that dissociation can affect somatoform functions. "Dissociative disorders have in common a partial or complete loss of the normal integration of memories from the past, self-awareness and immediate sensations, and control of body movements" [29]. This diagnostic manual only deals with dissociative disorders presenting a loss of sensations or loss of, or interference with, movements. Disorders which may include further sensations such as pain are categorized as somatoform disorders, the same as somatization disorder. Multiple and ill-defined

complaints of somatic symptoms must be classified as somatoform disorders (F45) or neurasthenia (F48.0) [29].

We would like to point out once again how confusing such terminology is. In the ICD dissociative disorders (conversion disorders) are spoken of, under the assumption that they are equivalent concepts, although, as we have already seen, they refer to different concepts, according to the two different authors that described them.

To complicate things further, a pseudodissociative crisis is classified in the ICD-10 [29] as a dissociative disorder but as a somatoform disorder in the DSM [26]. As already mentioned, in the American classification, the conversion disorder can be found among somatoform disorders and is defined as "the presence of symptoms or deficit that affects motor or sensorial skills, and that suggest a neurological disorder or some other medical condition" [28]. The current DSM-V renames conversion disorders as "functional neurological symptomatic disorder" [30] stressing the need for neurological tests (consistency in the test is a way of proving incompatibility between the symptom and well-known medical or neurological conditions)" [28] and also implying that the presence of relevant psychological factors cannot always be proven at diagnosis, which seems to give currency to the idea they should not always be linked to psychological disorders.

The opposite occurs in the case of the somatization disorder, which is now called somatic symptom disorder [30], clarifying that in order to reach this diagnosis, there must be somatic symptoms and moreover maladaptive thoughts, feelings and behaviours. Previously this disorder was defined as having somatic symptoms that couldn't be explained medically, but in the current diagnostic, this criterion is consigned to conversion disorders and pseudocyesis because these are the only cases in which it is though that it can be demonstrated that the symptoms are not consistent with medical pathophysiology. There is a substantial difference between these diagnostic criteria and previous ones, since there is a break away from the classic understanding of the somatization disorder (or Briquet syndrome) belonging to hysteria and therefore of psychological causation. Thus the possibility of a new medical disorder that has not as yet been identified is opened up.

The future ICD-11 has replaced a new category of bodily distress disorder, which replaces all of ICD-10 categories within the group of somatoform disorders (F45.0) and, to a large extent, neurasthenia (F48.0), bringing these together under a single category. The only ICD-10 somatoform condition excluded from BDD is hypochondriasis that has been placed within the grouping of obsessive-compulsive and related disorders. In both the proposed bodily distress disorder and somatic symptom disorder, the most fundamental revision has been the abolition of the distinction between medically explained and medically unexplained somatic complaints [31].

The depersonalization disorder appears in the DSM-IV among the dissociative disorders, but in the ICD-10, it is classified in a category of its own, in the section "Other Neurotic Disorders" together with derealization, as if they were one and only. According to the DSM, depersonalization is defined as feeling of estrangement or detachment from oneself [28], and there can be several different types of sensory anaesthesia, lack of affective response and feeling of loss of control of one's own acts [28], while the ICD-10 speaks of the depersonalization-derealization

disorder, which "generally appear in the context of depressive illness, phobic disorders and obsessive-compulsive disorders" [29], with no reference to dissociative disorders, although its definition is similar to that of the DSM.

There are few references in these classifications to the number of manifestations of these disorders in one sex or another. According to Gaviria [32], this approach has been minimal in the DSM-I (1952) and DSM-II (1968) and was probably due to the lack of research concerning the relation between gender and psychopathology. In the DSM-III (1980), there was a slight increase in the interest in sex/gender, and in the section on conversion disorder, it is said that there is no conclusive information [32] but that globus hystericus is apparently more frequent in women. The DSM-III-R (1987) and DSM-IV continued making some headway in this area, and this time there was information about variations in the expression and length of the disorders according to gender that was included in the section called specific characteristics including culture, age and gender [28].

In the DSM-IV, there are details about the somatization disorder "formerly known as hysteria or Briquet syndrome" indicating that it rarely affects men in the USA, but the high incidence among Greeks and Puerto Ricans suggests that cultural factors can affect prevalence according to gender. Prevalence was in any case variable, between 0.2 and 2% in women and less than 0.2% in men, but this could be related to the fact that most doctors were male and in that case a bias may lead him to diagnose more frequently in women. The ICD-10 equally concludes that there is a greater prevalence among women, at least in some countries, without taking into account cultural factors. It does mention, on the other hand, a link with attention seeking behaviours (histrionics) [32].

There is only one reference to gender in the description of the depersonalization disorder in the DSM-IV-TR, where it is specified in symptoms dependent on culture, that in groups of patients it is twice more frequent in women than in men [33].

Conversion disorders appear more frequently in women than in men, in a relation ranging between 2:1 and 10:1, and many of these women later present with somatization disorder. In the case of men, they find an association with the antisocial personality disorder, in military contexts and in accidents in the workplace [28], which could be interpreted as based on a sociocultural bias.

Dissociative amnesia is referred to equally in both classifications as affecting men less frequently, and only in extreme cases, such as men submitted to combat stress [28, 29], which definitely is, in our opinion, another cultural bias.

About the rest of dissociative disorders, the ICD-10 makes no further mention of gender, except in passing when it mentions that young teenagers of the female sex suffer more frequently from "moderate and transient variations of dissociative disorders of voluntary motility and sensitivity" [29].

In the case of the DSM-IV, there are no distinctions between genders in the rest of the dissociative disorders, with the exception of the dissociative identity disorder, which is diagnosed between "three to nine times more in women than in men...". Women tend to present more identities than men (15:8) by average [28].

In the DSM-IV-TR (2000), a great effort was made to broaden and deepen the scope of information related to gender [32], but in our opinion, at least in terms of

disorders related to dissociation, there is no additional information except that related to the depersonalization disorder.

In the recently published DSM-V (May 2013), many novelties have been introduced that have been controversial [33]. In terms of the subject we are dealing with here, we have to point out that there is a different structure. The multiaxial evaluation has been dropped, and there is a framework of information about age, gender and characteristics of development of the patient throughout the text. Prior to its publication, we find in the literature critical analysis of the shortcomings to be found in these manuals in terms of the knowledge gathered about variables of age and gender in psychiatric diagnostics [34, 35].

The dissociative identity disorder appeared in a completely different light in the DSM-V with more information being given about differences in gender although no specific aetiological explanation related to gender is provided or of any other kind. First it is stated that the condition is more predominant among women in adults, but there is no data about children. Denial of the symptoms and traumatic memories among men is postulated as commonplace, and this would account for a high number of false negatives. Among women, acute presentations are more common (flashback, amnesias, fugues, conversion symptoms, hallucinations or self-mutilation). Men present more violent or criminal behaviour, and the triggers for acute dissociative episodes are combat, being an inmate in prison or physical or sexual aggression [30].

With regard to dissociative amnesia, in the DSM-V, we find a brief mention of a greater predominance among women. This reference is contextualized within the USA and derived from only one "small" study [30] on the prevalence of the disorder over 12 months: 1.8% (1% men, 2.6% women). Moreover it includes dissociative fugue within this disorder as just another feature and not as a separate diagnostic entity.

This manual follows the same criterion as the ICD and labels derealization and depersonalization as one and only disorder, but it remains in the category of dissociative disorders. It adds a prevalence of the disorder of 2% and a ratio related to gender of 1:1, unlike previous manuals which claimed they did not have any information related to this.

As for somatic symptom disorder, the DSM-V estimates a greater prevalence than the one put forward for the old somatization disorder owing to greater flexibility in the diagnostic criteria, the fact that symptoms that cannot be explained medically should not be demanded, and the smaller number of symptoms present and it estimates between 5 and 7%. Also, it does not specify, but it does mention a greater prevalence among women [30].

With regard to conversion disorder, the DSM-V points to but once again offers no explanation for the claim that the disorder is two to three times more common among women than in men [30].

North [36] examines the chronicle efforts to classify the somatoform syndromes and proposes a new phenomenologically based classification scheme for the disorders along the axis of somatization/conversion/dissociation/borderline disorders. This classification is more compatible with the agnostic and atheoretical approach to diagnosis of mental disorders used by DSM-V. It allows for some diagnostic overlap and uses a new term "oForm" to refer to the categories of somatoform and psychoform symptoms.

#### 12.5 Female Gender in Dissociative Disorders

We start from the assumption that there seem to be differences in how psychical symptoms are perceived in men and women though this premise could be questionable according to other variables as social class, ethnic group or cultural environment. In our sociocultural context, women present more often a subjective perception of lower psychical well-being, worse quality of life and worse state of health than men and tend to use health services more often [37].

Assuming traumatic events as factors of vulnerability and triggers of mental disorders, it is known that if these traumatic events take place during infancy, they are more serious. Thus suffering from sexual abuse in infancy increases the risk of suffering from anxiety disorders. There is, moreover, a different response to a psychical trauma according to gender. In general, women suffer a lower number of traumatic experiences, but they are more vulnerable to them [38].

DSM-V describes a subtype of post-traumatic stress disorder which is called "dissociative", which is characterized by dissociative symptoms. Evidence comes from studies about adults and children, which include functional neuroimage, as well as different types of trauma, including sexual and physical abuse in childhood and traumas associated with military combat. Levy Yeyati points out this diagnosis is still being searched of a cross-cultural validity because nowadays it's not used globally [39].

Briere et al. propose a new construct, dissociative complexity, that is phenomenologically and empirically different from a unidimensional index of dissociative severity and represent the overall breadth or complexity of an individual's dissociative response. This was higher among prisoners and women [40].

Studies estimate a prevalence of sexual abuse in childhood in this disorder as being 20% for women and 8% for men [41]. In a study with veteran soldiers, it was found that 15% of men and 8% of women suffered from post-traumatic stress disorder 15 years after having served in Vietnam [42]. These international studies demonstrate that boys have a greater probability compared to girls of suffering or being threatened with physical aggression or having a friend or relative who has been assaulted [43]. They also have a greater chance of being hit by a car, getting hurt in a playground and being a witness of violent confrontations. In contrast with this data, girls are at greater risk of sexual assault [43].

Another study found that girls were twice more likely than boys to be in the PTSD-DISS (PTSD with dissociation) [44]. On the other hand, other studies found few gender-related differences were noted between male and female veterans with histories of military sexual trauma, compared to military combat trauma [45].

Traumatization has been found very common among adolescents; emotional traumas are linked to higher rates of dissociation, especially among girls [46].

A new clinician rating measure, the symptoms of trauma scale (SOTS), has proved reliability and validity. For men, SOTS scores are associated with childhood sexual and emotional abuse, whereas for women SOTS scores are more consistently and strongly associated with childhood family adversity and self-reported PTSD symptoms. Results from this scale provide directions for research on gender differences [47].

Among functional neurological disorders, women endorsed increased past physical/sexual trauma comparing to men who reported higher rates of cognitive complaints and functional weakness [48].

The forthcoming 11th version of the International Classification of Diseases (ICD-11) proposes two sibling disorders with new criteria for these trauma-related disorders and defines post-traumatic stress disorder (PTSD) and complex post-traumatic stress disorder (cPTSD) as separate disorders. Several studies have tried to test this proposal [49–51]. An ICD-11 cPTSD diagnosis was distinguished from an ICD-11 PTSD diagnosis by higher levels of dissociation, depression and border-line personality disorder [52], and cPTSD identifies a distinct group who have more often experienced multiple and sustained traumas and have greater functional impairment than those with PTSD [49, 53]. Hyland et al. found that being female increased the risk for both PTSD and cPTSD classification [53].

We continue to link hysteria with the female gender today. There is a widely held belief that dissociative symptoms and disorders are predominantly found in women. Empirical studies in the general population and in different clinical trials indicate that there are no differences between genders [54]. One explanation that has been postulated to account for this apparent prevalence of dissociative disorders among women is that women resort more often to health service providers while the condition is usually identified among men in law-related environments such as prisons or forensic institutions [55]. A study in New York [56] did not find any differences in gender in the distribution of dissociative disorders. There is a general belief, based on clinical observations and pointed out in the DSM-V [30], that among clinical populations, male patients easily hide their symptoms and histories of trauma. On the other hand, Sar et al. [57] found in a Turkish study, among high-performance university students, that the male students reported more traumas during childhood than the female students.

There are other explanations, determined culturally, that would explain a greater prevalence of dissociative disorders among women, as demonstrated by Wolfrad [58], in his study seeking the relation between dissociative experiences, anxiety features and paranormal beliefs among a sample of students, in which these were more frequent among women along with higher scores in dissociative experiences. Along the same lines, Pires [59] demonstrated that there was a greater psychological impact on women than on men who have suffered a car accident, but they do not find any significant differences between genders when looking at the peritraumatic dissociation.

Other studies, the vast majority, demonstrate there is a greater prevalence of dissociative and somatoform disorders among women. Nicolai [60] offers different explanations for these differences in the prevalence according to gender, and one of them is the attachment disorder and abuse in the childhood of these women.

Zona [61] has studied longitudinally the impact of exposure to violence among city teenagers. For both sexes an increase in the number of symptoms were predicted prospectively (externalization, internalization, post-traumatic stress disorder and dissociation). The boys referred on average greater exposure to violent situations, while the girls were more prone to suffering dissociative experiences,

suggesting different specific paths dependent on gender, in terms of the specific psychopathology of the trauma.

Some of the results of the study are of special interest to clinicians who treat somatizations or other somatoform disorders without a clear medical etiology.

ACE (The Adverse Childhood Experiences) [62] in which a direct relation is found between the probability of sexual abuse in childhood and the number of medically inexplicable symptoms in adult age. Women have a 50% greater probability of having suffered five or more categories of adverse experiences in childhood.

Felitti et al. [62] consider that this is key to understanding the greater propensity women have to suffering health problems such as fibromyalgia, chronic fatigue syndrome, obesity, irritable bowel syndrome and non-malignant pain syndromes.

Many studies find a higher prevalence of conversion disorders among women [63], although this difference can vary according to the type of disorder. Stone et al. [64] found that the proportion of women was lower in cases of psychogenic weakness syndromes than in cases of epileptic pseudocrises.

Non-epileptic psychogenic crises are recognized in all studies as being more prevalent in women than in men [65, 66], which seems to be consistent with a greater prevalence in conversion disorders as well, and both are included among somatoform disorders in the DSM.

Against hypotheses explaining this prevalence of conversion disorders in women, which would focus on cultural differences, we refer to the comparative study by Cubo et al. [67], who finds a higher prevalence of psychogenic movement disorders among women in different healthcare settings in the USA and in Spain. Another study found that psychogenic movement disorders are equally prevalent among women and men [68].

#### 12.6 Conclusions

Dissociative symptoms are present in different psychiatric disorders, if current diagnostic classifications such as the recent DSM-V or the forthcoming ICD-11 are used as a yardstick. In order to understand the psychopathology of dissociative symptoms, it is important to know in what cultural-historical context the concept of dissociation was born and what paths its evolution has followed throughout the history of psychiatry. Down through the years, other related concepts have appeared coined by different authors, among them Jean Charcot or Sigmund Freud.

Different psychological theories have tried to explain somatic and psychogenic symptoms, those whose medical aetiology is unknown, and links to hysteria and its phenomenology have been discussed. All of this has culminated in a considerable amount of confusion when it comes to concepts and terminology that we have tried to clarify insofar as that is possible. From Pierre Janet and his desagrégation psychologique to Sigmund Freud and his conversion, or the somatization disorder described in the DSM-IV, there is a descriptive psychopathology which is constantly changing. This conceptual foundation has been addressed in the latest diagnostic manuals, but unfortunately only adding a new dimension to the confusion.

Dissociation has always been related to hysteria and hysteria with women. We have tried to find the cultural and historical basis accounting for this prevalence in the nineteenth century, which is when the concept was born, and remind our readers of the medical references to male hysteria described at the time, now for the most part forgotten but which were an important part of Charcot's casuistry and his description of traumatic hysteria. Split personality or demonic possession was a condition in no way exclusive to women, and these are clearly considered dissociative disorders in modern-day psychopathology.

Epidemiological studies indicate that there is a prevalence of conversion disorders among women, but dissociative disorders do not seem to appear in the same numbers, and findings are more controversial, excepting some isolated study [44] that differentiates PTSD from PTSD with dissociation, being the latter more prevalent in girls. There is no explanation as yet for this statistical difference, and it is possible that there may be a reason, dependent on gender psychopathology, accounting for the greater prevalence of somatoform disorders among women. This leads us to the conclusion that further studies are required and that more interest in the field of mental health care for women is desirable. We need to incorporate gender perspective if we want to get a quality science.

### References

- Gastó C. Psicopatología de la conciencia. In: vallejo Ruiloba J, editor. Introducción a la psicopatología y la psiquiatría. 6ª ed. Barcelona: Masson; 2006. p. 129–14.
- Spiegel D, Loewenstein RJ, Lewis-Fernández R, Sar V, Simeon D, Vermetten E, et al. Dissociative disorders in DSM-5. Depress Anxiety. 2011;28(9):824–52.
- American Psychiatric Association. Manual diagnóstico y estadístico de los trastornos mentales, texto revisado. Primera ed. Barcelona: Masson; 2002.
- 4. Janet P. L'Automatisme psychologique. 1ª Reimpresión. París: Odile Jacob; 1989.
- 5. Ellenberger H. El descubrimiento del inconsciente. 1ª Reimoresión. Madrid: Gredos; 1976.
- Rojo A. El concepto dissociation en el fin-de-siècle: P. Janet and S. Freud [Tesis doctoral]. Madrid: Universidad Complutense; 2005.
- Ellert RS. Nijenhuis. Somatoform dissociation: major symptoms of dissociative disorders. J Trauma Dissociation. 2000;1(4):7–32.
- 8. Ortega C. Las mujeres y la enfermedad mental. Una perspectiva de género a través de la historia contemporánea. Revista de historia y pensamiento de género. 2011;1(4):208–23.
- Plumed J. La etiología de la locura en el siglo XIX a través de la psiquiatría española. Frenia. 2004:4(2):69–91.
- 10. Ross C. Sexual trauma at the Salpetriere. J Psychohist. 2016;43(4):277–87.
- Rojo A. El cuerpo disociado. In: Fuentenebro F, Rojo A, Valiente C, editors. Psicopatología y fenomenología de la corporalidad. Vigo: Feito SL; 2005. p. 119–37.
- 12. Janet P. Névroses et idées fixes, vol. 1. 4a ed. Société Pierre Janet: París; 1990.
- Postel J, Quétel C, comps. Historia de la psiquiatría. 1ªReimp. México: Fondo de cultura económica; 1993.
- 14. Pearce JM. Sydenham on hysteria. Eur Neurol. 2016;76(3-4):175-81.
- 15. Bolzinger A. Freud et les parisiens. Campagne première: París; 2002.
- 16. Hacking I. L'âme réécrite. Étude sur la personnalité multiple et les sciences de la mémoire. Institut Synthélabo pou le progrès de la connaissance: Le Plessis Robinson; 1998.
- 17. Charcot JM. Lecciones sobre la histeria traumática. In: Pereña F, Desviat M, comps. Madrid: Nieva; 1989.

- 18. Janet P. L'état mental des hystériques. 1ª Reimpresión. Marseille: Laffitte reprints; 1983.
- 19. López JM, Morales JM. Neurosis y psicoterapia. Madrid: Espasa-Calpe; 1970.
- Cagigas A. Charcot y las lecciones del martes. In: Charcot JM, editor. Histeria. Jaén: Del lunar; 2003. p. 7–12.
- 21. Thoret Y, Giraud AC, Ducerf B. La dissociation hystérique dans les texts de Janet et Freud avant 1911. Evol Psychiatr. 1999;64(4):749–64.
- 22. Freud S. Sobre la teoría del ataque histérico. In: Freud S. Obras completas. vol. 1. Buenos Aires: Amorrortu; 1982. p. 187–190.
- 23. Freud S. Sobre el mecanismo psíquico de fenómenos histéricos: comunicación preliminar. In: Freud S, editor. Obras completas, vol. 2. Buenos Aires: Amorrortu; 1999. p. 27–44.
- 24. Freud S. Las neuropsicosis de defensa. In: Freud S, editor. Obras completas, vol. 1. 2ª ed. Madrid: Biblioteca Nueva; 2001. p. 169–77.
- Pérez S, Galdón J. Los fenómenos disociativos: una revisión conceptual. Rev psicop psicol clin. 2003;8(2):85–108.
- 26. Garrabé J. La taxonomie actuelle des troubles dissociatifs. Evol Psychiatr. 1999;64(4):717-26.
- 27. Nijenhuis ERS. Somatoform dissociation: phenomena, measurement, and theoretical issues. New York: Norton & Company; 2004.
- López Ibor JJ, editor. DSM-IV. Manual diagnóstico y estadístico de los trastornos mentales. Barcelona: Masson; 1995.
- López Ibor JJ, editor. CIE 10. Décima revisión de la clasificación internacional de las enfermedades. Trastornos mentales y del comportamiento. Descripciones clínicas y pautas para el diagnóstico. Madrid: Meditor; 1992.
- American Psychiatric Association. Diagnostic and statistical manual of mental, DSM V. 5<sup>a</sup> ed. Arlington, VA: American Psychiatric Association; 2013.
- 31. Gureje O, Reed GM. Bodily distress disorder in ICD-11: problems and prospects. World Psychiatry. 2016;15(3):291–2.
- 32. Gaviria SL, Alarcón RD. Psicopatología y género: visión longitudinal e histórica a través del DSM. Rev Colomb Psiquiat. 2010;39(2):389–404.
- 33. López Ibor JJ. DSM-IV-TR. Manual diagnóstico y estadístico de los trastornos mentales. Barcelona: Masson; 2002.
- 34. Narrow WE. DSM-V: Consideraciones sobre la edad y el género en el diagnóstico psiquiátrico. Barcelona: Masson; 2009.
- 35. Johnson J, Steward DE. DSM-V: toward a sensitive approach to psychiatric diagnosis. Arch Womens Ment Health. 2010;13(1):17–9.
- 36. North CS. The classification of hysteria and related disorders: historical and phenomenological considerations. Behav Sci (Basel). 2015;5(4):496–517.
- 37. Ezquiaga E. Aspectos diferenciales en los trastornos de ansiedad. In: Saiz J, director. Salud mental y género en la práctica clínica. Madrid: Ars Medica; 2007. p. 59–78.
- 38. Punamaki RL, Komproe IH, Quota S, Elmasri M, De Jong JT. The role of peritraumatic dissociation and gender in the association between trauma and mental health in a Palestinian community sample. Am J Psychiatry. 2005;162:545–51.
- 39. Levy YE. Translating hysteria: PTSD dissociative subtype. Vertex. 2016;XXVII(126):103-8.
- 40. Briere J, Dietrich A, Semple RJ. Dissociative complexity: antecedents and clinical correlates of a new construct. Psychol Trauma. 2016;8(5):577–84.
- 41. Pereda N, Guilera G, Forns M, Gómez BJ. The prevalence of child sexual abuse in community and student samples: a meta-analysis. J Clin Psychol Rev. 2009;29(4):328–38.
- 42. Schelemger WE, Kulka RA, Fairbank JA, Hough RL, Jordan BK, Marmar CR, et al. The prevalence of post-traumatic stress disorder in the Vietnam generation: a multimethod, multisource assessment of psychiatric disorder. J Trauma Stress. 1992;5(3):333–63.
- 43. Karestan CK, Roberts AL, Stone DM, Dunn EC. The epidemiology of early childhood trauma. In: Lanius RA, Vermetten E, Pain C, editors. The impact of early life trauma on health and disease. The hidden epidemic. 5ª ed. Cambridge: Cambridge University Press; 2013. p. 13–24.
- 44. Hagan MJ, Gentry M, Ippen CG, Lieberman AF. PTSD with and without dissociation in young children exposed to interpersonal trauma. J Affect Disord. 2018;227:536–41.

45. Sexton MB, Raggio GA, McSweeney LB, Authier CC, Rauch SAM. Contrasting gender and combat versus military sexual traumas: psychiatric symptom severity and morbidities in treatment-seeking veterans. J Womens Health (Larchmt). 2017;26(9):933–40.

- 46. Gusic S, Cardeña E, Bengtsson H, Sondergaard HP. Types of trauma in adolescence and their relation to dissociation: a mixed-methods study. Psychol Trauma. 2016;8(5):568–76.
- 47. Ford JD, Schneeberger AR, Komarovskaya I, Muenzenmaier K, Castille D, Opler LA, Link B. The symptoms of trauma scale (SOTS): psychometric evaluation and gender differences with adults diagnosed with serious mental illness. J Trauma Dissociation. 2017;18(4):559–74.
- 48. Matin N, Young SS, Williams B, LaFrance WC Jr, King JN, Caplan D, Chemali Z, Weilburg JB, Dickerson BC, Perez DL. Neuropsychiatric associations with gender, illness duration, work disability, and motor subtype in a U.S. functional neurological disorders clinic population. J Neuropsychiatry Clin Neurosci. 2017;29(4):375–82.
- 49. Brewin CR, Cloitre M, Hyland P, Shevlin M, Maercker A, Byrant RA, Humanyun A, Jones LM, Kagee A, Rousseau C, Somasundaram D, Suzuki Y, Wessely S, van Ommeren M, Reed GM. A review of current evidence regarding the ICD-11 proposals for diagnosing PTSD and complex PTSD. Clin Psychol Rev. 2017;58:1–15.
- Pwers A, Fani N, Carter S, Cross D, Cloitre M, Bradley B. Differential predictors of DSM-5 PTSD and ICD-11 complex PTSD among African American women. Eur J Psychotraumatol. 2017;8(1):1338914.
- 51. Hyland P, Shevlin M, Elklit A, Murphy J, Vallières F, Garvent DW, Cloitre M. An assessment of the construct validity of the ICD-11 proposal for complex posttraumatic stress disorder. Psychol Trauma. 2017;9(1):1–9.
- 52. Hyland P, Shevlin M, Fyvie C, Karatzias T. Posttraumatic stress disorder and complex post-traumatic stress disorder in DSM-5 and ICD-11: clinical and behavioral correlates. J Trauma Stress. 2018;31(2):174–80.
- 53. Hyland P, Murphy J, Shelvin M, Vallrières F, McElroy E, Elklit A, Christoffersen M, Cloitre M. Variation in post-traumatic response: the role of trauma type in predicting ICD-11 PTSD and cPTSD symptoms. Soc Psychiatry Psychiatr Epidemiol. 2017;52(6):727–36.
- Spitzer C. Gender differences in dissociation. A dimensional approach. Psychopathology. 2003;36(2):65–70.
- 55. Spitzer C, Freyberger HJ. Gender differences in dissociative disorders. Bundesgesundheitsbla. 2008;51(1):46–52.
- 56. Johnson JG, Cohen P, Kasen S, Brook J. S. Dissociative disorders among adults in the community, impaired functioning, and axis I and II comorbidity. J Psychiatr Res. 2006;40(2):131–40.
- 57. Sar V, Gamze A, Kugu N, Ozturk E, Ertem-Vehid H. Axis I dissociative disorder comorbidity in borderline personality disorder and reports of childhood trauma. J Clin Psychiatry. 2006;67:1583–90.
- 58. Wolfrad U. Dissociative experiences, trait anxiety and paranormal beliefs. Pers Indiv Differ. 1997;23(1):15–9.
- 59. Pires TSF. Are men more resilient than women after a road traffic accident? Psychol Health. 2012;27(1):104–5.
- 60. Nicolai NJ. Chronic stress, sex and gender. Tijdschr Psychiatr. 2009;51(8):569-77.
- 61. Zona K. Gender differences in the longitudinal impact of exposure to violence on mental health in urban youth. J Youth Adolesc. 2011;40(12):1674–90.
- 62. Felitti VJ, Anda RF. The relationship of adverse childhood experiences to adult medical disease, psychiatric disorders and sexual behavior: implications for healthcare. In: Lanius RA, Vermetten E, Pain C, editors. The impact of early life trauma on health and disease. The hidden epidemic. 5<sup>a</sup>. Cambridge: Cambridge University Press; 2013. p. 77–87.
- 63. Carson A, Stone J, Hibberd C, Murray G, Duncan R, Coleman R, et al. Disability, distress and unemployment in neurology outpatients with symptoms "unexplained by organic disease". J Neurol Neurosurg Psychiatry. 2011;82(7):810–3.
- 64. Stone J, Sharpe M, Binzer M. Motor conversion symptoms and pseudoseizures: a comparison of clinical characteristics. Psychosomatics. 2004;45(6):492–9.

- 65. Reuber M, Elger CE. Psychogenic nonepileptic seizures: review and update. Epilepsy Behav. 2003;4(3):205–16.
- 66. Reuber M, Pukrop R, Bauer J, Helmstaedter C, Tessendorf N, Elger CE. Ann Neurol. 2003;53(3):305–11.
- 67. Cubo E, Hinson VK, Goetz CG, García Ruiz P, García de Yebenes J, Marti MJ, et al. Transcultural comparison of psychogenic movement disorders. Mov Disord. 2005;20(10):1343–5.
- 68. Kamble N, Prashantha DK, Jha M, Netravathi M, Reddy YC, Pal PK. Gender and age determinants of psychogenic movement disorders: a clinical profile of 73 patients. Can J Neurol Sci. 2016;43(2):268–77.



# Dysmorphophobia: From Neuroticism to Psychoticism

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I am writing as an ugly one for the ugly ones: the old hags, the dykes, the frigid, the unfucked, the unfuckables, the neurotics, the psychos, for all those girls that do not get a look-in in the universal market of the consumable chick.

Virginie Despentes

#### **Abstract**

Dysmorphophobia is a concept that challenges psychiatric epistemology. Throughout history, it varied from psychosis to neurosis and from symptoms to syndrome. Throughout the present chapter, we broach the pathoplasty of body dysmorphic disorder according to gender differences in prevalence, analysing its symptoms from a gender-based perspective. Considering a biopsychosocial

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perspective, we will analyse the main factors surrounding this disorder, taking into account the influence of social gender stereotypes and beauty ideals.

The anthropological investigations and history have brought to light the importance of sociocultural factors surrounding the aesthetic aspects of body image. Since men/women became self-conscious, they had suffered baseless fears about his deformity or ugliness, especially since specular surfaces began to abound.

Body dysmorphic disorder (BDD) or dysmorphophobia is an underdiagnosed disorder characterised by an excessive preoccupation with a perceived physical defect or with an overestimation of the trivial existent one. Interference caused by the symptom is produced; the worries are very time-consuming having a significant impact on the psychosocial functioning of the individual, what distinguishes BDD from ordinary or "physiological" preoccupations with physical appearance.

#### 13.1 Introduction

Historical and cross-cultural literature suggests that since classical times, people consider the human body and the appearance as an object of a particular aesthetic and symbolic investigation. Appearance and image have occupied the minds of the human race and have been associated with perceptions of body embodiment and social distinction. It has been described numerous factors related to a vulnerability in biopsychosocial characteristics about body image. Among them, the study of pathological ideas about their own body has attracted medical society attention.

The term body dysmorphic disorder (BDD) has changed over time and has always been at the centre of the controversy since its classification as a mental disorder. Some authors have proposed this disorder as an independent nosological entity of a problematic location. It has been argued whether to include or not in the "Obsessive-Compulsive and Related Disorders" section in the fifth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (*DSM*-V) [1]. From a psychopathological point of view, it is still doubted whether its main manifestation consists of an obsessive idea, an overestimated idea or a delirious one.

Etiologically, BDD is derived from the Latin term "dysmorphia", which refers to "an alteration or malformation of the body form". It consists of an intense fear or rejection (from Greek *phobos*) to be deformed (from Greek, *dismorfia*; without form) or aesthetically ugly. Some authors have investigated the origins of this term, reporting histories from ancients Greeks. The term comes from the word "dysmorphia", which was used by the historian Herodotus in the fifth century, referring to "the ugliest woman of Sparta".

By the end of the nineteenth century first introduced the term dysmorphophobia in the medical literature by the Italian psychiatrist Enrico Morselli. He described in his article, entitled "Sulla dismorfofobia e sulla talefobia", the term dysmorphophobia as "a subjective description of ugliness and physical defect which the patient feels is noticeable to others" [2]. This psychiatrist described dysmorphophobia as an "obsessive and devastating idea" about body deformity and classified it as a rudimentary paranoia or abortive monomania that affected the integrity of the individual [2].

The dysmorphophobic patient is miserable; in the middle of his daily routines, conversations, while reading, during meals, in fact everywhere and at any time, is overcome by the fear of deformity... which may reach a very; painful intensity [2].

Other examples of historical references for this term include different authors during the last two centuries. It was in the last years of the nineteenth century and the first years of the twentieth century when different authors approach the clinical phenomenology associated with this term.

Some authors of historical reference include those studies of Hanns Kaan, who in 1982 published in his book "neurasthenia and obsession" some case studies about fears of ugliness. Some years later, the French psychiatrist Pierre Janet (1905) encompasses the term dysmorphophobia inside his psychasthenic syndrome and mentions it as part of a compulsive neurosis nature, which he describes as "the obsessions and of the shame of the body", also of the nosological phobic-obsessive nature [3]. In fact, Pierre Janet was considered the first person who described the first possible use of behaviour therapy in these patients. Contemporary, Ernest Dupré explained in 1907 the fears of ugliness as a result of a disturbance in inner proprioceptive information [4].

Finally, among other authors, Korkina and Morozov realised a revision at the beginning of the century, where they registered that some Russian authors as Korsakov, Betcherev and Suchanov had already documented similar clinical phenomena. In fact, Osipov is considered to introduce in Russian psychiatry the term dysmorphophobia, by describing the case of a 27-year-old woman who believed she was "too tall" and had "the lower part of the face" deformed [3, 4].

The term "dysmorphophobia" probably came into English in the translation in 1909 of Tanzi's textbook of *Mental Diseases*, where for the first time Morelli was mentioned in the section of obsessive ideas [5]. Following this, it was in 1909 when Kraepelin in his chapter on "Die Zwangsneurose" legitimised and classified the term dysmorphophobia as a compulsive neurosis, but without mentioning Morselli. Kraepelin made a description of the same clinical features and symptomatology under a different term ("ereuthophobia"). Since then other terms appeared in order to describe the same term with a different name, including the shame of body, the psychosis of ugliness or hypochondria of beauty, among others [4].

One of the most famous cases described by Freud was the "Wolf Man". Freud reports this patient as a compulsive neurosis, in which the patient, a Russian aristocrat, was preoccupied by imagined defects of his nose. Subsequently, Brunswick denominated it as a hypochondriac paranoia. He detaches how observation of the facial ugliness through a pocket mirror turns into the centre of the whole life of the patient [3, 4].

To come up with the "neurotic" end of the term, the term dysmorphophobia first appeared in 1980 in the third edition of the International Classification of Mental Disorders (DSM-III) [6]. It was included as an atypical subtype under the

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somatoform disorders section. In this edition, due to this disorder was described as an atypical somatoform disorder; it was not specified its diagnostic criteria. It was in 1987 when the term BDD was first introduced in DSM-III-R, to describe a type of somatoform disorder of non-delirious nature. It was described and characterised as a preoccupation with an imagined or trivial defect in appearance. Indistinctly, the delirious ones will be included in this classification in another epigraph, under the delusional disorders in the somatic type section.

The following classifications DSM-IV and DSM-IV-TR keep the concept. They add to it the criteria of "clinically significant defect or deterioration in the psychosocial functioning" [7]. ICD-10 includes both, BDD and non-delirious dysmorphophobia in hypochondriac categories (F45.2) and the above-mentioned delirious dysmorphophobia – in delusional disorders [8]. In spite of giving a new name to the combination of the diverted attitudes termed "body dysmorphic disorder", they did not dissipate the conceptual ambiguities caused by "dysmorphophobia".

Finally, due to the evolution of the concept associated with BDD, and with the launch of DSM-V in 2013, they point out the importance of the repetitive behaviours and the acts associated with the worries about physical defects. Therefore, BDD has been moved to the section on obsessive-compulsive and other related disorders. While in the DSM-IV criteria for BDD disorder refereed to an "imagined defect", this has been clarified in the new edition to refer to a preoccupation with "perceived defects or flaws". Moreover, these symptoms must reach significant distress in patients' life and are associated with "marked functional impairment across multiple domains" [1]. The delirious types are not included anymore in the delusional disorders of somatic character. This presentation belongs to the BDD itself, specifying the absence of "insight" or delirious belief [9].

In the tenth edition of the *International Classification of Diseases and Related Health Problems* (ICD-10) [8], BDD was not an independent diagnostic category but instead was listed as an inclusion term under hypochondriacal disorder section. Currently, and in recognition of its distinct symptomatology and prevalence, it has been proposed for the ICD-11 the inclusion of this disorder in the new "Obsessive-Compulsive and Related Disorders" chapter, closely related to the DSM-V criteria [10]. However, the WHO ICD-11 Working Group has not proposed including a specifier for muscle dysmorphia in the BDD, arguing that these symptoms are not of sufficiently different from other perceived defects of this disorder [10].

# 13.2 A Nosological Issue: Symptom or Syndrome

Over the last decades, one of the main topic questions related to body dysmorphic disorder (BDD) diagnoses was whether it should be considered an isolated nosological entity itself or not. Some authors believe dysmorphophobia could be a non-specific symptom that can result in a variety of psychiatric syndromes, while others consider it to be a separated entity [11]. Already in 1984, Cristopher Thomas stands up for an average term, pointing out the possible existence of primary and secondary forms, to distinguish cases of principal disorder from the ones with the

dysmorphic symptoms, secondary to other psychiatric conditions, including depression, schizophrenia, personality disorders and severe neurosis [12]. It has been widely described in the literature that BDD shows high lifetime comorbidity rates with other psychiatric disorders, especially with depression, eating disorders, social anxiety and obsessive-compulsive disorder (OCD) [13].

Other authors have proposed high comorbidity of BDD with Axis II disorders. When considering the presence of Axis II disorders among patients with BDD, they detached as the most common diagnosis the presence of cluster C disorders, including avoidant personality disorder, dependent personality and the obsessive-compulsive one. Furthermore, the dysmorphic alteration as a symptom has been associated with depression, obsessive mood, personality disorders and anorexia nervosa [13, 14].

Since the inclusion of BDD in the "Obsessive-Compulsive and Related Disorders" section in the fifth edition of the DSM, it has attracted critical debate and controversy. The relation assumed among these disorders has been challenged on both theoretical and empirical grounds, with only a few direct investigations assuming this association. A recent systematic review published in 2017 found that BDD and OCD shared some similar features, such as sociodemographic features, age onset and illness course or symptom severity. Conversely, these authors founded that BDD patients show worse illness insight and course, social anxiety and greater shame associations compared to OCD [15]. When considering the excessive preoccupation about the perceived defects, it seems evident that these patients would suffer from higher levels of anxiety and dysphoria related to repetitive and excessive thoughts and behaviours.

The classification of BDD in the "Obsessive-Compulsive Disorders" chapter was based on assertions of overlapping symptomatology between BDD and OCD in some characteristic features, as symptom presentation, comorbidity patterns and other genetic and biological considerations. Despite that, these results highlight the need to introduce new and more exhaustive methods to undertake the study of current models and nosology of this complex disorder.

## 13.3 Dysmorphophobia: From Psychosis to Neurosis

As it was referred in the historical antecedents, the qualifying tradition in different editions of the diagnostic and statistical manual of the American Psychiatric Association included body dysmorphic disorder under the somatoform disorder section. However, as we have already seen from the historical evolution, the relation between obsessive-compulsive disorder (OCD) and body dysmorphic disorder (BDD) seems far from clear [16, 17].

The constant concern about one part of the body can be contemplated, from a descriptive point of view, as an obsession while repetitive checking, camouflage behaviour and searching for reaffirmation as compulsive behaviour [18]. On the one hand, many authors, such as Janet, Dietrich, Corbella and Rossi, Noto-Campanella, Tomkiewich and Finder, Schachter, Hay and Alby, among others, consider dysmorphophobia as an obsession, suggesting that they are a part of the

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obsessive-compulsive spectrum or a type of OCD. More than a century ago, Morselli noticed that BDD patients presented an obsessive-compulsive behaviour similar to OCD. Other authors, as mentioned previously, accounted for this classification. Among them, Janet classified BDD within a group of syndromes similar to OCD, in his description, as an "obsession with the shame of the body". Later, Solyom and colleagues suggested that BDD could be considered an "obsessive psychosis", an atypical and malignant form of OCD. In fact, during the development of DSM-IV, the possibility of classifying BDD in the same section as OCD was evaluated. Nevertheless, according to other authors, this theory was insufficient as it only takes into consideration the repetitiveness of the conducts, ignoring other phenomenological variables surrounding this disease. For that reason, and because of the lack of consensus and scientific rigour, this theory was rejected [19, 20].

On the other hand, the dysmorphic idea is far from being absurd for these patients. They are not aware of the senseless of their worries. In this aspect, we deal with two types mentioned by Schachter: one that is close to obsessions (dysmorphic complex) and another which is a more delirious one (dysmorphic delusion). They are based on the similar attitude of acceptance or rejection that they have. He thinks that the difference between an obsessive idea and a delirious idea cannot consist only in a difference of attitudes towards it, as it is not a specific feature of any of them [21].

It is found that the difference lies in the disturbance self-consciousness that occurs in the delusional idea itself and not in the obsessive one [22]. The first one is experienced as a duty, a siege outsight of the self. However, the obsessive one does not lose the sense of one's own experience and self-activity. In fact, one of the new changes introduced in the DSM-V includes that delusional variant of BDD (including those patients convinced that their defects are truly abnormal appearing) is no longer encoded as a type of delusional disorder but a BBD "with the absent insight/delusional beliefs" specifier instead [1].

The reality is that a dysmorphic idea can be considered closer to an overvalued idea. However, due to the lack of attention of psychopathology to overvalued ideas and considering that the origin of the disorder is not very clear, this poses a significant challenge in understanding its nosological position. The self-referential touches that sometimes have these tables owe to the fact that what matters to the patients is their appearance. This is why these patients feel being observed, but all this without the phenomenon's losing its anancastic character and without the diagnostic criteria of schizophrenia being accomplished [23].

Therefore, it is objectified that there is a red line in considering the separation of BDD from a delirious somatic disorder. For that reason, it is complicated on many occasions to separate these disorders, as the boundary between the overvaluation of the aesthetic defect and the delirious certainty sometimes is very vague [24]. Some authors consider that both disorders are different, considering that overvalued ideas and delirious ideas cannot be at the same time about one aspect [25]. They allude that dysmorphic ideas can be presented as a simple, unimportant transitory preoccupation, forming obsessive neurotic syndrome of a very disabling character, and, in other cases, as a real hypochondriac delirious psychosis.

This difficulty in classifying beliefs and thoughts that show people who have BDD can make us consider that there is no one-of-a-kind way of thinking and that the latter can vary from light convection of the overvalued ideas to the delirious ideas [26, 27]. Philips and colleagues make a demonstration of the patients without any difference between delirious and non-delirious subtypes in most of the examined variables, including the response to treatment. Therefore, these authors and their contributors conclude that "a dimensional approach characterized by different degrees of conviction seems to be more precise than a dichotomous approach" [28, 29]. As it was shown in the evolutional development of the concept of BDD, this dimensional continuity makes clear that the difficulty in indicating the limits of BDD is still an aspect of considerable controversy.

## 13.4 Gender-Based Epidemiology

BDD is a relatively common disorder. In population-based studies with adults, the point prevalence rates of BDD range from 0.7 to 2.4% based on DSM-III or DSM-IV criteria. When considering the DSM-V criteria, the estimated prevalence in adults is 2.4% (2.5% in women and 2.2% in men) [14]. Indeed, recent studies published over the last years have accounted for a little bit higher prevalence of 3.3% [30].

Moreover, when considering other medical affections, individuals suffering from BDD frequently use or seek more medical consultations compared to the general population. Between them, dermatology and cosmetic surgery seem the most prevalent.

Some authors have examined the prevalence rate of BDD symptom criteria in patients suffering from dermatologic issues and found that around 9–15% of these patients scored symptoms for BDD criteria [14]. This issue has also been examined in other medical samples, finding surprising results. In Europe, it has been described that approximately 3–16% of patients requiring aesthetic surgery meet specific criteria for BDD [14]. These results have been supported and replied in the United States, with rates of prevalence among 7–8%.

Considering these results, we face with a lack of information related to this complex disease. When considering epidemiological studies, it seems clear that there exists a lack of information related to gender differences presented in this disorder. Most of the authors point out the need to research the impact of social and cultural factors surrounding this disorder.

Recent studies carried out in adolescent samples across the world had shown a significant prevalence of BDD in females than in their counterparts. Mollmann and colleagues carried out a self-report study of BDD by DSM-V symptoms in a German student sample, discovering a general prevalence of 3.6%. Not surprisingly, 81.8% of those individuals were female [31]. Moreover, nationwide population-based studies carried out in twins have shown that general prevalence of clinically significant BDD symptoms was estimated around 1–2%, with a higher prevalence in females, compared to males (1.3–3.3% vs. 0.2–0.6%) [32].

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Among clinical symptoms of the BDD, the presence of suicidal ideation and suicidal attempts has been described. Frequently, those symptoms are misdiagnosed and associated with other psychiatric illnesses, such as depression or anxiety disorders. As compared with patients suffering from an obsessive-compulsive disorder, and concerning the similarities among them, BDD patients account for high rates of suicidality. BDD has also been associated with strikingly high rates of suicidality; reported rates of suicidal ideation range from 17 to 77%, while rates of suicide attempts range from 3 to 63% [33]. Despite those results, and as said before, the authors focused on the scarce of information about this disorder.

BDD is a disorder insufficiently studied and, according to some authors, probably underdiagnosed. Searching literature, only a few studies take into consideration a gender-based analysis. Beyond these concerns, it has been highlighted that BDD has been relatively understudied and that there is a lack of knowledge regarding specific aetiological mechanisms underlying this disorder.

Moreover, and as a recurrent phenomenon in biomedical research, there is a lack of knowledge about the differences presented by sex and gender analysis. When considering differences presented by women and men in medical conditions, a small number of studies take into consideration not only the presence of specific clinical manifestations but also in considering a sex-gender perspective.

Taking into consideration these results, it seems necessary to consider other aspects and variables surrounding this disease. It is needed to widen the spectrum of gaze and consider other scientific branches to understand the underlying mechanisms in which a disease is developed and maintained. Between them, anthropology and sociology seem to shed light on this matter.

To our point of view, there is a clear need to talk about the sociological theories about the body (social body), considering how it is structured. This theory converts the body into the centre of social and anthropological reflection. From this perspective, it is possible to realise a new reflection about the presence or absence of differences in the prevalence according to gender in BDD.

It should be emphasised that body social theory is taken from the intellectual work of the previous two centuries, as it is described in 1990 by Bryan Turner in *Recent Developments in the Theory of the Body* [34]. Other authors, such as Douglas in his book *Natural Symbols*, attribute to Mauss being the first investigator who tries the social anthropological body theory and analyses the human response to the confusion, the risk, the uncertainty and the contradiction. This should be understood from the idea that the human body is the main system of classification and metaphor of the social world among the different cultural realities [35].

In this brief review of the pioneer body theories, Foucault is one of the most responsible for the development that has been taking of the body social study in the last decades. In fact, this author coined the term "biopower" to refer to a dominant system, the perpetrator of coercive mechanisms and social control operating on all micro-levels of society [36]. He provided a brilliant explanation of how everything related to the body has been socially and politically processed in different contexts and how it allowed the patients to resist their bodies. Different perspectives included in the current body social theory are supported by re-reading and surpassing all these and other previous contributions.

Besides that, this is a speciality that is directly connected with the appearance of the new dilemmas and controversies at the epistemological and methodical level, primarily related to the post-structuralist and feminist criticism. For some authors this body analysis would respond better than others and seems necessary to reformulate the different theories about identity, experience and culture [37].

Staying on this plan, according to philosopher Celia Amorós, the ethic and politic feminist fight has changed into an aesthetic one, in a form that young girls are regulated by the aesthetic aspect while receiving messages of independence that contradict the situation of domination which they live. During the last 30 years, we face modifications in regulations and controls of a woman's body that had consequences in the definitions of the feminine, of being a woman, in configurations of gender and also in the construction of women's subjectivity. The social construction of women's body has been traditionally based for their reproductive work. In other words, and as said by St. Thomas Aquinas, "Tota mulier in utero" or a woman is nothing but a womb.

At the end of the twentieth century, feminism, like other social movements, puts the body in the centre of the fight and recognition, but it was a reproductive body. Gradually, this body has been converted into an object of exhibition and visibility. The social and political situation has changed, and nowadays the woman's body is mostly the aesthetic body, the visible body and the political body, which is more related to social and cultural dynamics than to the gender system. So, if the social body is the aesthetic one, the political body should also build on these facts.

This situation implies different consequences when considering younger people compared to adults, as the possible consequences can affect these groups differently. Adults present more protective factors compared to younger generations, which means that gender standardisation affects them in another way. If we come back to the mentioned studies about BDD and non-significant differences in prevalence among men and women, we would like to present a theory called *Feminist practice theory* belonged to such authors as Bourdieu, Giddens or Turner.

This theory influences the appearance of what it can be denominated as study "body as agent". One of the most relevant authors in this aspect is the Australian sociologist Raewyn Connell, who is very critical regarding body studies being carried in social and biological sciences. She defends and builds on the premise that both biology and society produce gender differences regarding behaviour [38]. From this perspective, the body is seen as a place of resistance, opposition, in different economic, political, sexual, aesthetical and intellectual disputes.

On account of all these reasons, if we consider an analysis from feminist and social perspectives, it is expected to find a differentiated prevalence where women would lose. However, this difference is not being observed, according to the data. From Connell's theory perspective, as a possible explanation of these results, it can be established that a standardised body works as a place of resistance and power. Assuming social requests that agree with diagnostic criteria, these women remain classified as healthy and do not lose their position as healthy social subjects. Probably we are underestimating and camouflaging these symptoms under other medical conditions, as described in the literature under dermatology or aesthetic consultations. We might think that the difference between genders is not observed

because women would not reveal the symptoms; indeed, such symptoms might appear in a subclinical manner. They would consider them socially "normal" and would include them as part of their bodies, accepting them or not, but integrating them as parts of society.

We point out one of the main conclusions about the evolution of the gender inequalities: a woman's body is regulated, controlled, standardised and determined by a system of the distinguishing and discriminatory type, by some large-scale institutions (fashion advertisement, mass media, sports, medicine). As well described by marketing applied psychology, social media is used to influence and control the body and corporality. Some authors approaching from a sociological perspective emphasise that societal standards and other sociocultural factors are stronger influencers in the development of body image disturbance [39].

However, as we have already mentioned previously, this nature of woman's body as disposed of for confrontation, opposition, and resistance has given to women all the tools to stay invisible in front of the psychiatric diagnosis and to remain classified as healthy and normal. This is the place of power.

### 13.5 Clinical Differential Presentation

When considering the term pathoplasty in medical jargon, we refer to the different clinical presentations that can take a disease. In the case of BDD, gender aspects result in the key element for its presentation, differing and distinguishing symptomatology clearly.

Gender is a critically important moderator factor in the development of psychopathology. As described in the literature, epidemiological studies have proven the presence of differential patterns in the prevalence of psychiatric disorders among men and women. Not only women present inherent biological differences compared to men but also present differing patterns in the development of symptomatology or course disease.

During the past decade, studies focused on clinical differences presented among men and women have found:

- Men demonstrated an excessive preoccupation with the aspect of genitals and muscle mass, while women showed obsessive thoughts about the excess of body hair or facial hair and used such techniques as makeup to cover up their imperfections.
- Women tended to look at themselves in the mirror more often and to change clothes, while men dedicated themselves to do exercises to gain muscle mass.
- Women showed a significant preoccupation with how other people would perceive them and tend to hide their bodies so that other people would not fix at them.

However, in these studies, we do not find any explanation of the reason for these differences, which could be primarily answered by sociocultural and gender perspective. To understand these differences, we cannot forget that as being an

individual in society, sociocultural factors, as body image and appearance, play a crucial role in how men and women perceive and experience their lives.

This is related to the definition of the masculine and the feminine, which beauty is more associated with the feminine and strength with the masculine, with a different treatment of sexuality and desire for men and women, and more dedication to jobs from women and activities which presence and social interaction are determinants [40].

Naomi Wolf [41], in her book *The Beauty Myth*, analyses how in the 18th and 19th centuries *the beauty myth*:

...in its modern form gained ground after the upheavals of industrialization, as the work unit of the family was destroyed, and urbanization and the emerging factory system demanded what social engineers of the time termed the 'separate sphere' of domesticity, which supported the new labour category of the 'breadwinner' who left home for the work-place during the day. The middle class expanded, the standards of living and literacy rose, the size of families shrank; a new class of literate, idle women developed, on whose submission to enforced domesticity the evolving system of industrial capitalism depended.

According to the idea of the myth gained ground, Martinez Benlloch et al. point out that "in the 20th century, especially since the thirties, fashion will be the mirror in which women will look in, prevailing in industrialised countries, the denominated fetishism of the fit". This changes the beauty stereotype, from the imaginary feminine of pompous forms, represented by the binomial femininity = maternity, to the more androgynous one, of pre-puberty and slim feminine bodies [42].

However, in this culture, is not only important a particular beauty ideal, the cult of youth as well, which means to make up not only your face but also your age [43].

It seems evident the relationship between gender and body image. When considering these two terms, the vast majority of authors reviewing this matter agree a diversified reality perceived by men and women. In fact, some of those theories emphasise that men and women internalise the body ideals differently. In general, men are shown through the exhibition and the instrumentalisation by their body for strength and work, giving priority in male beauty standards of "masculine vigour". Men frequently internalise a larger and more muscular ideal and generally are more satisfied with body size. There is increased visibility in worldwide social media of the hegemonic "supermale ideal" (muscular) body. That idea is hidden in body strength that is fundamentally focused on a muscular and athletic core. This "masculine vigour" also alludes to the importance of genital aspect (for men), which tends to be one of the key areas for the disorder.

Nevertheless, the main goals of female body learning are reproduction and seduction. Women associate lower facial adiposity with higher attractiveness than do their male counterparts. Studies carried out among adolescents have shown that facial comparisons endorsed by boys were related to body dissatisfaction. In conclusion, the presence of gender differences in social comparison indicated that girls reported more social comparisons than do boys [44]. Regarding reproduction, female genital organs are not mentioned, they remain unmentionable in the social sphere, and therefore they are not part of a dysmorphic female area, remaining as a "taboo".

This differentiated instrumentalisation leads to a regular exam made by society to female bodies. On the contrary, male bodies do not suffer that much from beauty norm effects, fashion, a constant need to makeup, weight loss and gain diets and aesthetic surgery effects, among others, as there is no need for them to be expression but just instrument. Indeed, and related to body image dissatisfaction, some authors found that women were more likely to report a more significant monetary investment in their physical appearance than men [45].

In consequence, women turn out to be damaged. The pressure of social acceptance keeps the mechanisms of hostility among women's body: keep the perfection. Besides, other authors highlight that while men have a holistic idea about bodies (more oriented to functional aspects such as "keeping fit" or wain "muscle mass"), women generally focus on shape or form aspects rather than in function. At the same time, women have fragmented views of them that bring them to look at their body in a divided way and try to adjust these divided parts into cultural standards [46].

In this way, coming back to the headline of this section, the clinical differences of BDD cannot be separated from the existing inequality between men and women taking into consideration that image and corporal identity are key elements for the maintenance of this inequality.

### 13.6 Psychopathology and Gender

The critique of gender norms must be situated within the context of lives as they are lived and must be guided by the question of what maximises the possibilities for a livable life, what minimises the possibility of an unbearable life, or, indeed, the social or literal death

(J. Butler [47])

When considering body dissatisfaction, it is essential to place on record that this mental evaluation of the own body should not always be considered as a disorder; there are some factors, as an excessive preoccupation and dissatisfaction with the body, that do not adjust to reality. This dissatisfaction must reach enough intensity and frequency to generate such discomfort, interfering the everyday life of those people affected. Body image is a subjective concept, where the perceptions, experiences of embodiment and attitudes towards the body remain the focus element of this term.

Body image is a representation of human body that every individual builds in his or her mind [48] and the experiences, perception or emotions that an individual can have of their own body [49].

Body dissatisfaction refers to a negative evaluation of the self-body surrounding elements, as the body shape, the muscle tone and weight, among others. It usually involves an auto-perceived discrepancy between a person's evaluation of his or her body and the ideal body [50].

Nowadays, some investigations demonstrate the relation between body image alterations, dissatisfaction with one's body and how ideas and cognitions about one's body affect the body image and self-image. The acceptance of one's body

scheme is the basis of identity. In other words, the body in which we are born with is unique and unrepeatable; and this uniqueness is precisely what a person needs to recognise himself/herself and to be what he/she is.

The question that, in this case, a person could ask himself/herself would be why some individuals get obsessed with their look and corporal image, whereas other individuals experiment corporal unsatisfactory and believe that by undertaking some changes, a normal life can be lived. The dysmorphophobic patient's primary preoccupation is about his/her appearance, the image that his/her body offers to himself/herself and other people. They believe that this defect determines or identifies their psychic, intimate and personal life of the human being, which could be considered a secondary aspect of an identity problem. The patient feels marginalised, rejected and eventually stigmatised by his/her deformity. This is a stigma that can reveal her/his intimacy, so having got rid of it, he/she can be accepted [51].

It is this feeling of wrongness, unfairness, and misconception that strengthens the desperation feeling and the eagerness to change, alter or hide. Being focused on the defects, the scrutiny conducts and the grooming or hygiene regular check-up, there is a tendency to avoid comparison with other people and to continually look for acceptance, either to have the defect minimised or to be accepted in that way. All this creates a vicious circle that increases discomfort.

### 13.6.1 Culture and Body Image

Concerns about body appearance are widely presented in most cultures around the world. The perception of the image that an individual has about his or her body is view in a subjective way, determined by social experience. Despite this subjectivity, the perception and value placed on beauty are influenced by culture-specific factors of physical body acceptance. Thus, body image is a flexible and open term dependent on social media influences at one moment. Media imaginary may be an essential variable in influencing and producing changes in the way a body is experienced and evaluated [52].

Sociocultural theories analysing social factors surrounding body dissatisfaction have provided a way for understanding how societal beauty standards influence women's lives. They try to analyse how beauty standards influence women's lives, inordinately emphasising in the idealisation of slenderness. In addition, some socio-cultural factors, such as the influence of advertising in the social media, the diet industry and supposed gender beauty stereotypes, reinforced this idea of achievement of the desirability body ideal, but impossible for many women to achieve. Thus, this idealisation of slenderness and thinness provides a framework for the development of feelings of anger and low self-esteem in those women affected by gender beauty standards.

It is likely that some social media consumers are more sensitive to such cues than others. For instance, adolescents seem an especially vulnerable group as body image plays an essential role in puberty. As seen in some studies, body image appears to have a crucial role in the development of psychopathology, as in the case of body image alterations and eating disorders [53].

## 13.6.1.1 Beauty and Defect: To Occupy an Ideal Place Is Actually Not Having a Place

Yes, I know. You haven't the slightest idea what I'm talking about. Beauty has long since disappeared. It has slipped beneath the surface of the noise, the noise of words, sunk deep as Atlantis. The only thing left of it is the word, whose meaning loses clarify from year to year.

(Milán Kundera)

As previously described, the disorder is structured by two principal axes: on the one hand, the distorted self-perception that does not reach the desired beauty or perfection and on the other the shame of exposing to another individual and not being accepted due to the defect.

The author, Silvia Tulbert, develops in her work [54] an explanation regarding the aesthetic surgery boom in our society. Such explanation provides orientation about the actual causes of the increase of defect perception in our society. Following the author statements, we are facing a complex phenomenon that requires taking into consideration an array of factors:

- 1. Subjective factors related to the need of adjusting to an ideal model to maintain the level of self-esteem.
- 2. Relational factors referred to the body image needed to achieve recognition in business or erotic market.
- 3. Historical social and cultural factors that place a woman as an object that obstructs the assumption and expression of their subjectivity.
- 4. Characteristics of our society associated with the rise of the body cult.
- 5. Supply generates the demand, suitable for the society of market.

### 13.6.1.2 Body Image and Self-Esteem

A cultural fixation on female thinness is nor an obsession about female beauty, but an obsession about female obedience. 'The Beauty Myth'.

(Naomi Wolf)

Preoccupation with adjusting the actual body to the ideal image does not only respond to the norm, but it functions as a powerful normalisation strategy. It produces bodies able to self-control and self-discipline and ready to transform and improve at the disposal of socio-political mandates and domination and submission relationships. Nevertheless, women experiment such practices as power, freedom and control sources. They perceive these practices as a means to achieve beauty, acceptance and success in the social, work and sexual areas and to have an interactive influence on others. These experiences explain the non-increase of the considered pathological manifestations because they are considered and located within the standard sociocultural framework.

This it is even more complicated considering the intersectional position of the body, where there are different aspects which are crossed: body as a material means through we are included in a social space and the body as a place of embodiment

and, finally, as a necessity, pleasure and pain support and as a reflection of other people's viewpoint and place of subjective interpretation.

Families initially transfer the cultural ideals with nuances for the different racial, social, educational, labour, national and regional classes that are modulated by the subjectivity of the transmitters. The transmission of the beauty ideal is reinforced by some sociocultural influences, which include the family and peer group experiences, and, as said before, most notably by media advertising [52]. The self-corporal ideal refers to the model that self-tries to emulate to keep his/her self-esteem. The central place of this ideal corresponds to the representations of femininity and masculinity, in the body image as well as in behaviour.

The demand to adjust to a cultural stereotype is more intense in the case of women than in men. Women are more exposed than men to body gender stereotypes and feelings of low self-esteem. The patriarchal culture expects women to be available for satisfying other people's desires. The willing to be recognised as desirable contributes to the fact that they find themselves in a position of objects destined to please others more likely than in a position of subjects of their wishes. This willing appears from the identification of women by the masculine evaluation, being evaluated by the gaze of another, with the corresponding subjective division. Men watch women and women observe how they are watched, and it determines not only how men-women relation works but the woman's relationship with herself as well [55]. This position of an object makes a woman more vulnerable in front of the demands of those who are considered subjects and the environment.

The gender construction and the attribution to sexual body start before the birth, and they remain through the vital cycle of the individual, taking into consideration the continuous requirement of the necessary correspondence between them. Scientific, philosophical, aesthetic or religious discourses are not just abstractions without any effect, taking part as a gendered technology and working as effective regulations that build the body [56]. Among others, Foucault affirms about self-discipline that the power does not need to use physical violence to impose its rules. As said by this author, "Sometimes it is enough being under the watchful eye that is insight of all us since it made us self-control". Since women are more fastened to this watching, because of their social family subordination, the normalising mechanism reproduces the cultural code of the differences and power relations between sexes [57].

#### 13.6.1.3 Medical Discourse

It is easy to assess the junction between the body ideal, mainly the female body, and some medical proposals, which also creates body models related to health. The medicine and the aesthetic surgery associate sexual, labour or social success, the ability to seduce and the identity essence with the stereotypes imposed on sexual bodies. They are defining masculinity and femininity and subordinating the value of the individuals to the correspondence with these stereotypes. As seen in advertising psychology, marketing media produces social stereotypes which contribute to reinforcing the criteria offering models of beauty standards of identification and self-perception, pathologising and medicalising the physical aspect. As a result, some medical specialities, such as aesthetic surgery, provide a medical solution for the mentioned *pathology*.

Medical solutions reinforce the symptom. It is hoped to correct in the real body the dissatisfaction or distortion of the body image that corresponds with other orders. Thus, the body becomes a screen concealing conflicts of the subject.

The discourse of the available social ideal has created a short circuit. In all manners of ways, they try to fill the gaps and block the conflicts inherent to human existence by creating an ideal image. The actual deed substitutes the elaboration.

In opposition to the unity of the imaginary identity, the symbolic articulation introduces the recognition of the difference, not only between oneself and others but also within the bosom on one's subjectivity.

With the collapse of this model, alienation is produced [58]:

- 1. The organism turns transparent, potentially everything in the body can be seen, divided and modified, and the body loses its organic unity to be transformed into a combination of organs without a body.
- 2. The corporality gets disorganised as the subject does not recognise himself/herself in his/her image, neither in his/her body as a consequence.
- 3. Subjective models are lost, in search for the ideal.
- 4. The self-image does not function with the perception, body experiences and subjectivity, but gets exalted and begins to occupy the place of the ideal of oneself nullifying his/her ability to direct the activity, intellectual, ethic and aesthetic values.
- 5. Finally, we know that the relationship with the body is based on the outright look and these short circuits encourage the hope to obtain a bonus of love and at the same time a bonus of pleasure of one's body.

This alienation supposes a breeding ground for the development of a faulty self-perception and body image disorders. Sociocultural and medical responses provide a framework in how symptomatic conducts are socially accepted, which trigger body image disorders.

#### 13.6.2 Shame

The history of humanity is the long succession of synonyms for the same word. To contradict it is a duty.

(René Char)

As we mentioned at the beginning, the BDD scheme is based on two aspects: defect and shame. In spite of being an omnipresent affection, the shame is hardly described in books of psychology, psychopathology and psychiatry. One of the earliest experts in this area defines it as a feeling of insult directed to self-confidence and confidence in others [59]. On the other hand, Lewis described shame as a loss of self-esteem, which in the esteem of other people results as fury or anger that acts to regain the sense of being valued [60]. Wilson thought that shame is a strong feeling of being different and less than other human beings [61]. Tomkins described shame as one of

the nine human affections [62], such as indignity, transgression and alienation. He describes it as an impediment to the expression of interest, excitement or joy that interferes with the pleasure of an experience. Erikson developed the second evolutionary state centred on the autonomy versus shame and doubt. "The sense of self-control without a loss of self-esteem is the source of the sense of free will. From the inevitable sense of a loss of self-control and the parental overcontrol comes a propensity for doubts and shame" [63]. Sullivan described the dynamics of shame with the term anxiety: "in the meaning that I use this term, shame is a sign of the fact that one's self-esteem is in danger. Anxiety is a sign of the danger for self-respect…" [64].

As seen previously, there is not a consensus in how this term is defined. It seems clear that this feeling triggers an intense reaction of the inner experience. As described by Thomas Fuchs, when we experience shame or guilt, we are directly rejected from others, and then it is when we directly expose our corporeal body [65]. As exposed by Sartre, when we are exposed to social situations, the body becomes an object for them, as a "body for others" [66].

Shame is a deeply painful self-conscious emotion experienced when a person judges him or herself as wholly negative, leading to a general feeling of worthless and a feeling of being exposed [67]. As described in the literature, body shame appears to be inherent to BDD, driving to social isolation of patients suffering from this disease.

Besides from common usage, the Royal Academy of Spanish Language (RAE) shows us different definitions for the word. On the one hand, the word varies from the discomfiture of mood, which turns the face red, caused by some misconduct or by some shameful and humiliating act (own or someone else's) to punish for it. This would consist in exposing the accused to the affront and public confusion with some sign that would denote the crime: *Put to shame*. On the other hand, shame can come from the self-respect, an estimation of the own honour or dishonour, passing through the extern parts of the generating organs [68]. The confusion concerning the term can be explained by the different-level analysis of the mentioned affection.

Gershen Kauffman [69] realises an analysis of shame in three levels:

- 1. First of all, shame is a moral feeling. An individual can feel ashamed of misbehaving, of diverging from the established norms of the environment. It refers to the ideal and narcissism. This level is related to the previous chapter as a solution of the conflict, in front of the organised and demanding ideal and an offer of solutions and methods for reaching the mentioned ideal (gym, diet, surgery, creams, aesthetic treatment). The individual with a damaged self-perception feels ashamed of himself/herself and tries to "behave in an appropriate way for the environment".
- 2. Secondly, shame is an existential feeling, which concerns a person who is "feeling naked". Shame reveals the intimacy of every human being. Its deep subjectivity is related to self-esteem and the esteem of others. The feeling of shame comes from the relational experience where an individual feels exposed to other people's look.
- 3. The experience of the lack of the feeling of admiration is on the basis of shame. Dysmorphophobia is a body phobia, a rejection of the own body, an external

fear of not being accepted, in front of which the individual responds with the shame of the body.

This is a kind of mental suffering of someone, who is trying to resolve his/her relational severe problem, because of the shame that hides himself/herself behind the *security systems* that are directed to the "self-protection" such as the image control. The disabling conviction in which defect is inside of oneself resides on the basis of dysmorphophobia. It is difficult that this conviction (of being someone defective) dissolves and passes to the acceptation and validation of one's singularity. The recognition of the mentioned singularity gets more complicated when we deal with a woman who identifies herself as an object, as it is typical for her to validate her wishes and recognise them without internalising other one's watching. The antidote of shame is the acceptation, feeling ourselves accepted but with our specificity. What was considered a defect is transformed to the acceptation of one's singularity.

In this context, mass media sources, such as fashion magazines and the idealisation of thinness, exert an element of control for women through the beauty canons. These images have been found to promote unattainable beauty ideals impossible to achieve for the most part of women and generate feelings of shame and guilt [39].

Velasco relates shame to the initiative: daring to be myself, daring to question an ideal, what "I am supposed to be", is always an experience that leads to "shame". Moreover, the belief of being flawed to the eyes of another individual blocks any type of initiative (shame of being) [70].

Lastly, shame is a social feeling that involves the subject identity. It is a feeling that possesses social control effects. It avoids the subject from separating from norms and values that are inside the social contract fundaments; the main element is the need to belong to a community and to be recognised by it. English targeted shame and social control directly describing shame as the price to pay for the child's internalisation of a specific control message coming from his family and culture. Its effect consists in inhibition, limitation and control of the expanding curiosity [71].

From a sociological point of view, the post-modern society is defined as a risk society, based on the fact that contemporary society cannot rely on its legitimacy on positivist goals but the avoidance of wrong. It is in this new way of legitimacy where the emotional chain of horror-shame-worryness acquires further importance and indispensable social function [72].

There are not many reasons to discuss the idea that states that emotion generally starts from social interaction or that are social norms which dictate emotional answers in particular circumstances and for determinate groups of people. The role that the individual plays in society, as a vast array of psychological and anthropological studies prove, is also determinant in the emotion experimentation [73–76].

Shame has also been defined concerning power relationships, in which the individual with a tendency to suffer from shame finds himself/herself in a relatively weak position in comparison to the other individual. This is because to feel shame there is not only a negative evaluation of oneself but the influence of the vision of a third individual also takes place. There are different ways through which culture and social environment can shape shame experiences, one of them being the development of what is and what is not shameful. Western societies build negative identities

from those who are less competent, less productive, deformed or somehow considered unattractive or immoral. It seems reasonable to think that some negative identities are more proclive to suffer these feelings [77].

### 13.7 Conclusion

The term body dysmorphic disorder has changed over time. Since its classification as a mental disorder, it has always been at the centre of the controversy. The anthropological investigations and history have brought to light the importance of sociocultural factors surrounding the aesthetic aspects of body image.

Human beings need to join some identity categories in order to be recognised through them in our community. Male and female categorisation could be listed among the simplest ones. These historical categories have varied depending on their utility for the existing balance. The identification with uniform gender ideals narrows living spaces in the same manner as the concepts of unification and overdetermination about beauty and defect do.

History has shown that body dysmorphic disorder has frequently been underdiagnosed. The classical medical model has revealed a real lack of understanding of how sociocultural factors influence the development and response of medical pathologies. Body dysmorphic disorder must be understood from a holistic perspective, considering its study from a biopsychosocial model to try to respond to the particularities inherent to it. For this reason, it is necessary to integrate and consider a gender perspective analysis in how sociocultural factors interact in the development of mental disorders.

### **Bibliography**

- American Psychiatric Association. Diagnostic and statistical manual of mental disorders. 5th ed. Washington, DC: American Psychiatric Association; 2013.
- Morselli E, Jerome L. Dysmorphophobia and taphephobia: two hitherto undescribed forms of insanity with fixed ideas. Hist Psychiatry. 2001;12:103–7.
- Veale D, Neziroglu E. Body dysmorphic disorder: a treatment manual. 1st ed. New York: Wiley Blackwell; 2010. p. 31–9.
- Berrios GE. The history of mental symptoms. Cambridge: Cambridge University Press; 1996.
   p. 263–8.
- Tanzi E. In: Robertson WF, Mckenzie TC (trads.), A textbook of mental diseases. Londres: Rebman Limited; 1909.
- American Psychiatric Association. Diagnostic and statistical manual of mental disorders. 3rd ed., text revision. Washington, DC: American Psychiatric Association; 1980.
- American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders. 4th ed., text revision. Washington, DC: American Psychiatric Association; 2000.
- 8. World Health Organization. ICD-10: International statistical classification of diseases and related health problems: tenth revision, 2nd ed. Geneva: World Health Organization; 2004.
- Phillips KA, Wilhelm S, Koran LM, Didie ER, Fallon BA, Feusner J, Stein DJ. Body dysmorphic disorder: some key issues for DSM-5. Depress Anxiety. 2010;27(6):573–91.
- Stein DJ, Kogan CS, Atmaca M, Fineberg NA, Fontenelle LF, Grant JE, et al. The classification of obsessive-compulsive and related disorders in the ICD-11. J Affect Disord. 2016;190:663–74.

11. Phillips KA, Pope HG, SL ME, Hudson JI, Keck PE. Body dysmorphic disorder: symptom or syndrome. Or Phillips and colleagues reply (Letter). Am J Psychiatry. 1994;15t:461–2.

- 12. Thomas CS. Dysmorphophobia: a question of definition. Br J Psychiatry. 1984;144:513-6.
- Mufaddel A, Osman OT, Almugaddam F, Jafferany M. A review of body dysmorphic disorder and its presentation in different clinical settings. Prim Care Companion CNS Disord. 2013;15(4). https://doi.org/10.4088/PCC.12r01464. Epub 2013 July 18.
- 14. Andreasen NC, Bardach J. Dysmorphophobia: symptom or disease? Am J Psychiatry. 1977;134:673–6.
- 15. Malcolm A, Labuschagne I, Castle D, Terrett G, Rendell PG, Rossell SL. The relationship between body dysmorphic disorder and obsessive-compulsive disorder: a systematic review of direct comparative studies. Aust N Z J Psychiatry. 2018 Nov;52(11):1030–49.
- 16. Bernad Polo JM, Pérez A. Trastorno dismórfico corporal. In: García-Campayo J, et al., editors. Actualización en trastornos somatomorfos. Madrid: Médica Panamericana; 2001.
- 17. Conesa LL, Masanet MJ, Pérez JF, et al. Trastorno dismórfico corporal: una entidad nosológica debatida. An Psiquiatr (Madrid). 1996;12(2):76–84.
- Jerome L. Body dysmorphic disorder: symptom or syndrome (Letter; comment). Am J Psychiatry. 1994;151:460–1.
- Solyom L, Di Nicola VF, Phil M, Sookman D, Luchins D. Is there a obsessive psychosis? Aeteological and prognostic factors of an atypical form of obsessive compulsive neurosis. Can J Psychiatr. 1985;30:372–9.
- Berrios GE. TOC y enfermedad neurológica: estado de la cuestión. In: Vallejo J, editor. Estados obsesivos. Madrid: Salvat; 1995.
- Schachter M. Nervoses dysmorphiques (complexes de laideur) et delire ou conviction delirante de dysmorphie. Ann Med Psychol (Paris). 1971;129:723–45.
- 22. López-Ibor JJ, López-Ibor JJA. El Cuerpo y la Corporalidad. España: Gredos; 1974. p. 165-6.
- 23. Phillips KA. Body dysmorphic disorder: the distress of imagined ugliness. Am J Psychiatry. 1991;148:1138–49.
- 24. De-Leon J, Bott A, Simpson GM. Dysmorphophobia: body dysmorphic disorder or delusional disorder. Somatic sublype? Compr Psychiatry. 1989;30:457–72.
- 25. Neziroglu FA, Yaryura-Tobias JA. Exposure, response prevention and cognitive therapy in the treatment of body dysmorphic disorder. Behav Ther. 1993;24:431–8.
- Phillips KA, McElroy SL. Insight, overvalued ideation, and delusional thinking in body dysmorphic disorder: theoretical and treatment implications. J Nerv Ment Dis. 1993;181:699–702.
- McElroy SL, Phillips KA, Keck PE Jr, et al. Body dysmorphic disorder: does it have a psychotic subtype? J Clin Psychiatry. 1993;54:389–95.
- 28. Phillips KA, McElroy SL, Iun KP, Iun PH, Hudson JI. Body dysmorphic disorder: 30 cases of imagined ugliness. Am J Psychiatry. 1993;150:302–8.
- 29. Phillips KA, McElroy SL, Keck PE Jr, et al. A comparison of delusional and nondelusional body dysmorphic disorder in 100 cases. Psychopharmacol Bull. 1994;30:179–86.
- Veale D, Gledhill LJ, Christodoulou P, Hodsoll J. Body dysmorphic disorder in different settings: a systematic review and estimated weighted prevalence. Body Image. 2016;18:168–86.
- 31. Mollmann A, Dietel FA, Hunger A, Buhlmann U. Prevalence of body dysmorphic disorder and associated features in German adolescents: a self-report survey. Psychiatry Res. 2017;254:263–7.
- 32. Enander J, Ivanov VZ, Mataix-Cols D, Kuja-Halkola R, Ljotsson B, Lundstrom S, et al. Prevalence and heritability of body dysmorphic symptoms in adolescents and young adults: a population-based nationwide twin study. Psychol Med. 2018;28:1–8.
- 33. Angelakis I, Gooding PA, Panagioti M. Suicidality in body dysmorphic disorder (BDD): a systematic review with meta-analysis. Clin Psychol Rev. 2016;49:55–66.
- 34. Turner B. Avances recientes en la teoría del cuerpo. In: C. Bañuelos madera (coord.); 1994.
- Douglas M. Símbolos naturales. Madrid, alianza universidad; 1ª ed. inglesa, 1970; 1ª ed. castellana, 1978.
- 36. Pylypa J. Power and bodily practice: applying the work of Foucault to an anthropology of the body. Arizona Anthropologist. 1998;13:21–36.

- 37. Csordas TJ. Introducción: the body as representation and being-in-the-world. In: Csordas TJ, editor. Embodiment and experience. The existencial; 1994.
- 38. Connell RW. "Men's bodies", masculinities. Oxford/Cambridge: Polity Press; 1995. p. 45-67.
- 39. Heinberg LJ, Thompson JK. Body image and televised images of thinness and attractiveness: a controlled laboratory investigation. J Soc Clin Psychol. 1995;14(4):325–38.
- 40. Esteban ML. Antropología del cuerpo. Barcelona: Bellaterra; 2013.
- 41. Wolf N. El mito de la belleza. Barcelona: Emecé; 1991.
- 42. Toro J. El cuerpo como delito. Anorexia, bulimia, cultura y sociedad. Barcelona: Ariel ciencia; 1996.
- 43. Gordon R. Anorexia y bulimia. anatomía de una epidemia social. Barcelona: Ariel; 1994.
- 44. Jones DC. Social comparison and body image: attractiveness comparisons to models and peers among adolescent girls and boys. Sex Roles. 2001;45(9–10):645–64.
- 45. Pertschuk MJ, Sarwer DB, Wadden TA, Whitaker LA. Body image dissatisfaction in male cosmetic surgery patients. Aesthet Plast Surg. 1998;22(1):20–4.
- 46. Martínez Benlloch I, coord. Género, desarrollo psico-social y trastornos de la imagen, instituto de la mujer, serie estudios, Madrid; 2001.
- 47. Butler J. Deshacer el género. Paidos: Barcelona; 2006.
- 48. Raich RM. Imagen corporal. Madrid: Pirámide; 2000.
- Guimón J. Los lugares del cuerpo. Neurobiología y psicosociología de la corporalidad. Paidos: Fundació Vidal i Barraguer. Ed; 1999.
- 50. Szymanski ML, Cash TF. Body-image disturbances and self-discrepancy theory: expansion of the body-image ideals questionnaire. J Soc Clin Psychol. 1995;14(2):134–46.
- López-Ibor JJ, Ortiz T, López-Ibor MI. Percepción, Vivencia e Identidad Corporales. Actas Españolas de Psiquiatría. 2011;39.
- Hargreaves D, Tiggemann M. The effect of television commercials on mood and body dissatisfaction: the role of appearance-schema activation. J Soc Clin Psychol. 2002;21:287–308.
- Ackard DM, Peterson CB. Association between puberty and disordered eating, body image, and other psychological variables. Int J Eat Disord. 2001;29(2):187–94.
- 54. Tulbert S. Culto a la imagen, sacrificio del cuerpo. [aut. libro] Mª Isabel Val del Valdivieso y Henar Gallego Franco. Las huellas de Focault en la Historiografía. Barcelona: Icaria Editorial; 2013. p. 73–99.
- 55. Berger J. Modos de ver. Gustavo Gili: Barcelona; 2000.
- Lauretis T. Technologies of Gender. Essays on Theory, Film and Fiction. London: Macmillan Press; 1989.
- Focault M. Tecnologías del yo y otros textos. Paidos: Barcelona; 1990.
- 58. Braidotti R. Des organes sans corps. Les cashiers du grif, págs. 1987;36:7–22.
- 59. Lynd. On shame and the search of identity. New York: Wiley; 1958.
- 60. Lewis. Shame and guilt in neurosis. New York: International Universities Press; 1971.
- Wilson. Release from shame: Recovery for adult children of dysfunctional families. Downers Grove: Interuniversities Press; 1990.
- Tomkins. Affect, imagery and consciousness. Vol. 2: The negative effects. New York: Springer; 1963.
- 63. Erikson. Childhood and society. New York: Norton, 1950.
- 64. Sullivan. Problems of communication in the interview. [aut. libro] Perry y Gawel. The psychoanalytic interview. New York: Norton; 1954. p. 206–26.
- 65. Fuchs T. The phenomenology of shame, guilt and the body in body dysmorphic disorder and depression. J Phenomenol Psychol. 2002;33(2):223–43.
- 66. Sartre JP. Being and nothingness. New York: Philosophical Library; 1956.
- 67. Weingarden H, Renshaw KD. Shame in the obsessive-compulsive related disorders: a conceptual review. J Affect Disord. 2014;171:74–84.
- 68. RAE. Diccionario de la lengua Española. Madrid: RAE; 2001.
- 69. Kauffman G. The psychology of shame. New York: Springer; 1989.
- Velasco R. Dismorfofobia o verguenza del cuerpo. Clinica e Investigación Relacional. 2010;4(1):208–20.

- 71. English F. Shame and social control. Trans Anal J. 1975;5:24-8.
- Alastuey B. El contenido emocional de la comunicación en la sociedad del riesgo. REIS. 1999:221–53.
- 73. Cash T. Developmental teasing about physical appearance: retrospective descriptions and relationships with boy image. J Soc Behav Pers. 1995;23:123–30.
- 74. Baker C, Wertheim EH. Body image: a handbook of theory, research, and clinical practice, edited by Thomas F. Cash and Thomas Pruzinsky, New York: Guilford Press; 2002.
- 75. Veale D. Advances in a cognitive behavioural model of body dysmorphic disorder. Body Image. 2004;1(1):113–25.
- 76. Veale D, Riley S. Mirror, mirror on the wall, who is the ugliest of them all? The psychopathology of mirror gazing in body dysmorphic disorder. Behav Res Ther. 2001;39(12):1381–93.
- 77. Leeming D, Boyle M. Shame as a social phenomenon: a critical analysis of the concept of dispositional shame. Psychol Psychother. 2004 Sep;77(Pt 3):375–96.



Eating Disorders 14

# Margarita Sáenz-Herrero, Sara Fuertes-Soriano, and Mayte López-Atanes

Chewing on something that felt so real, but couldn't have been, it couldn't. My face, the look in my eyes... my face, undoubtedly, but never seen before. Or no, not mine, but so familiar... nothing makes sense. Familiar and yet not... that vivid, strange, horribly uncanny feeling.

Han Kang, The Vegetarian

#### **Abstract**

Eating disorders are highly important and affect women more frequently. This is because of their clinical severity, comorbidities and increasing prevalence as well as their social repercussions. It is impossible to deny that eating disorders are multidetermined conditions. Most of those who treat or research them are reconciled to the need to approach them broadly and flexibly. Implicating genetic factors in a disorder like anorexia or bulimia nervosa is sensitive, and the potential for misunderstanding and misuse of gender theoretical concepts is very real. Psychiatry has a long, unfortunate history of misconstructing and pathologising female behaviour. Only recently there has been broader theoretical appreciation of the power of gender differences in self-development and the adverse effects of stereotyping children too rigidly by sex or gender. The objective is to highlight a multidimensional model for the explanation of eating disorders. However, this tends to omit the crucial dimension of culture, which includes the gender perspective.

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#### 14.1 Introduction

Hunger and appetite are bound together in the history of the world. Eating behaviour communicates socially through the symbolic meaning that transcends the act of ingesting. From birth, we are prone to seeking relationships with others while simultaneously satisfying our hunger instinct. The body is the means of experiencing the world and it forms part of all our learning. Through our eating, we relate to the world. We see the world from our body, and so the psychopathology of our eating behaviour is closely linked to the psychopathology of our body image. Neuroscience has reached the same conclusions through its different methodology toward phenomenology, psychiatric anthropology and philosophy. Mind, body and world interact in the way the individual adapts and survives. Identity is constituted around the physical body and the way we develop a feeling for what our body is like, as sensed by ourselves and as visible to others. This is very different for women and men. We require a relationship between body and culture with a gender perspective. Anorexia nervosa as a psychopathological condition that accords with our current criteria was first described in the nineteenth century, although Richard Morton noted it two centuries earlier. Bulimia nervosa as a clinical condition is much more recent, Gerald Russell having first described it in 1970s. Both pathologies are characterised by abnormalities in eating behaviour and the need to control weight. This causes physical consequences and/or alteration of the individual's psychosocial functioning. The psychopathology that is most frequent in a clinical setting is anorexia nervosa (the restriction of food with considerable weight loss as well as body distortion and extreme fear of fatness) and bulimia nervosa (bingeing episodes and compensatory behaviours such as vomiting as well as fear of gaining weight). Pica, rumination and sitiophobia are rarer. The incidence of binge eating disorder and obesity is increasing to pandemic proportions. There appears to be a connection with the cult of the body in Western society and the number of people on a diet, especially females. Both are diagnosed in the Diagnostic and Statistical Manual of Mental Disorders, DSM-5.

### 14.2 Conceptual Aspects: Hunger and Appetite

Feeding constitutes a means of communication with the rest. Roland Barthes stated this in *Pour une psycho-sociologie contemporaine*, where he demonstrated the individual symbolic relationship maintained with everything involved in the de facto of nutrition [1].

Feeding has conditioned the evolutionary course of history. *Der Mensch ist, was er isst* (man is what he eats). Human feeding is one of the basics of culture. However, feeding is not only eating. Food and the act of eating not only involve nutrition; they are also associated with multiple and various existential circumstances. "You are what you eat" cannot be distinguished from "you eat what you are".

The primitive relationship between women and men with food is related to the physiological sensation of hunger. Hunger, rather than appetite, is a biological need. It can

cause an individual to die. In today's world, over 10%—or 800 million—of the world's population are starving. Hunger is a danger; it limits our existence biologically [2].

Hunger is described as the need for food as a physiological alarm. It is the urge to eat an amount of food to survive. Appetite is understood in a different way. It implies the preference or qualitative selection of what we are going to eat [3]. The difference is obvious: while hunger implies the urge, appetite is linked to the culture, society and customs in which it is immersed [4].

From birth, eating is a social act. When the mother breastfeeds the baby, she also speaks, looks at her/him and smiles at her/him. Breastfeeding serves as a bond and communication between them. The baby is designed to seek the relationship. There is a predisposition toward the relationship from birth. The neurologist Damasio saw this as a corporal disposition. Children up to 6 or 7 years old are asked what a mother is: for feeding us. In French, *mam-mam* means at the same time "eating" and "mother" [5].

This is hunger as a vital feeling. In *The Life of Hunger*, Amélie Nothomb stated: "hunger is me".

"By hunger, I mean the terrible lack within the whole being, the gnawing void, the aspiration not so much to utopian plenitude as to simple reality: where there is nothing I beg for there to be something".

In the same way, food might be sad, exquisite nourishment that can be refused and even vomited in a conflicting or lived situation that threatens the individual. In a social psychology experiment, university students on campus were fed minced meat steak and then told that it had gone off and that the infirmary would be open all night long. A significant percentage visited the infirmary showing typical symptoms of food poisoning.

The same happens with religious taboos. Mohamed, a 9-year-old boy who had recently arrived from Iran, was given pork by mistake at a Parisian school. Instantaneously, he ate it with pleasure. However, when informed of the mistake made by the canteen, with Islam prohibiting pork, the boy vomited the whole afternoon and needed to be taken home [6]. What was said had activated an area in the brain, and when this reacted, it activated digestive motricity. This experiment was performed using students on a university campus, adding caffeine to their milk and offering them caffeine-free coffee, which significantly altered the hours slept by the group who took the coffee without caffeine [5].

We should not forget that there is nothing more threatening and intimidating than introducing something alien into the body. This happens every time we eat, when we use the mouth for nutrients to transact [7, 8]. By contrast, nourishment can be exquisite in satisfying situations.

The same happens in a religious sense. In Hebrew to eat is *A'hol*, which literally means unity-total. "Assimilate nutrients", do the same to yourself. Eating for Hebrews is to make a piece of the world a piece of oneself, a piece of God. In the case of Christians, it is the opposite. It is the piece of the world, a piece of God that will become a piece of myself. "Take this, all of you and eat of it: for this is my body" [5].

Eating means coming into this world with your hands. Eating means knowing in which world you are living. When you make yourself the nourishment, in a way,

you organise the world; you make it coherent. The one who eats calms the anger against the world and her/himself while digesting the world of which she/he is part.

The nourishment role is very diverse in different cultures and so is the social meaning linked to feeding and the ingestion of food. To Western societies like ours, food is basically what we find on our plates. Nowadays, we consume food that has been packaged in plastic and is decontextualized. There is no story behind it, where it comes from, who has made it, its symbolic value and its meaning.

In Papua New Guinea, food is considered to have a "vital essence" known as *un*. This is fundamental for the development and health of the members of that society. Moreover, vital essence is not only within one's body; it is also in the objects with which one makes any kind of contact, including food. One can acquire the properties of the person consuming the dishes that another person prepares ("you are what you eat"). Based on this principle, cannibalism is a common practice in these tribes. They eat their parents once they pass away, incorporating their virtues and abilities.

In the Hindi religion in India, food is shared in an intimate act of class-conscious solidarity. If someone belongs to a lower caste, she or he is rejected.

In a study, Baas et al. numbered the varied uses of food within societies and hence the different meanings that may be attributed to it [9, 10] (Table 14.1).

Food and sexuality are widely related in colloquial language and slang, as in words and phrases like "juicy", "melons" and "forbidden fruit", together with the cherry and its associations related to virginity. "Getting your greens" refers not only to adequate consumption of vegetables but also a regular supply of sexual intercourse.

**Table 14.1** The varied uses of food within societies and hence the different meanings

| 1. To satisfy hunger and nourish the body                    |
|--|
| 2. To start and maintain personal and business relationships |
| 3. To prove the extension and nature of social relationships |
| 4. To give chances for developing community activities       |
| 5. To express love and affection                             |
| 6. To express individuality                                  |
| 7. To announce the difference in the group                   |
| 8. To prove group belonging                                  |
| 9. To face psychological and emotional stress                |
| 10. To indicate social status                                |
| 11. For rewards and punishments                              |
| 12. To reinforce self-esteem and merit social recognition    |
| 13. To practise political and economic force                 |
| 14. To prevent, diagnose and treat physical illnesses        |
| 15. To prevent, diagnose and treat mental disorders          |
| 16. To symbolise emotional experiences                       |
| 17. To manifest piety and devotion                           |
| 18. To display confidence                                    |
| 19. To express moral feelings                                |
| 20. To indicate wealth                                       |

If eating can, and usually does, take on multiple meanings beyond merely nutritional aspects, the same may be said about a failure to eat or, more accurately, to eat "nothing". As with the first suffragettes whose hunger strikes had a political component, they refused the world they had found themselves living in. With regard to hunger as an ideology, Susan Bordo analysed the differences displayed by men and women when they were represented eating. A woman's appetite requires continence and control, while a man's appetite is legitimate and stimulated. "The man-eater" is seen as a dangerous image of female desire, "the temptress". These provocative bodies, "bodies that can talk", have enabled them to be viewed culturally as being responsible for the aggressive and sexual bodily responses of men. In industrialised societies, discipline, control and the creation of "docile bodies" are a reality for women who receive greater gratification in nourishing and feeding others than themselves. This underlines the gender divide of power: male public space and private female space.

In practice, there are no social or cultural groups without collective prohibitions with regard to the intake of certain foods. These are solidly established food taboos [11]. In fact, the principal taboos of our culture refer to food and sexuality: cannibalism and incest.

Anthropophagy or cannibalism was the most important consequence when the *Australopithecus* changed to a carnivorous diet. Both then and at any other time in history, cannibalism has appeared in its different forms [12].

Many people became cannibals because they lacked the proteins in meat and had no other way of finding them. Thus, the aborigines of Polynesia and Australia were habitual practitioners of anthropophagy until Captain James Cook introduced the pig into these lands. Cook himself fell victim to these practices when he was murdered and devoured by his enemies, who believed they would acquire the manna or extraordinary powers they attributed to the explorer.

In the sixteenth century, Sawney Bean, a highwayman in Angus (Scotland), held up travellers, killed them and ate them in his cave. Years later, his own daughter was burned alive on a bonfire when it was discovered that she had adopted the same practice. Both, the search for new food and hunger, have been highly important in the development and dissemination of cannibalism. One example comes from Germany during the Thirty Years' War (1618–1648), and a recent one is the tragedy experienced by the survivors of a plane crash in the Andes in the 1960s.

Art has never been far removed from this type of practice either. We only need to take a look at the Goya's Black Paintings. The artist's inimitable style leads us to anthropophagy in his oil painting *Saturn Devouring His Son*.

### 14.3 Historical and Social Perspective of Eating Behaviour

Historically, food has been closely linked to status and social prestige. The way we eat is a means of affirming and acquiring prestige with regard to others. The desire for social advancement has been a powerful driving force in the transformation of eating [10]. This manifests itself basically through the adoption of foods, dishes and

table manners inspired by those of a social stratum considered to be superior and for whom the aim was to equal or imitate. "I eat, therefore I am", Miguel de Unamuno said in an interesting prologue to the work by the biologist and philosopher, Ramón Turró, *Origins of Knowledge: Hunger* (1945).

#### 14.3.1 Primitive Societies

The first references to body image date back to the Palaeolithic era, 30,000–20,000 BC. This was demonstrated by the discovery of the Venus of Willendorf, a statuette of a woman symbolising fertility in a village on the banks of the Danube. Currently on show at the Vienna natural history museum, it is the image of a prehistoric woman.

Over all the cultures, the representation of the female body has been significantly larger in size than its male counterpart. In Palaeolithic representations, female characteristics are unmistakeable: adiposity of the torso, large buttocks and huge breasts, all of which underline the role of fertility and nutrition as a symbol of elevated social status.

It is unknown, however, whether the archaeological Venuses are faithful representations tailored to the reality of what was observed or are an artistic and idealised vision that symbolises the desire for abundance and fertility, particularly in a period of the history of humankind when hunger was a threat to human life.

Ford and Beach [13] studied 190 tribal societies and, as was observed in the Palaeolithic figures, found in virtually all of them that obese women were considered more beautiful than thin ones due to their greater procreative and feeding capacity. On the other hand, men's attractiveness lay more in their skills and social standing.

Prehistoric sculpture representing the female prototype usually symbolises female fecundity together with birth-giving and breastfeeding capacity. This was also contained in myths like Hera's drop of milk that gave rise to the Milky Way while she was suckling Hercules.

A large woman's body symbolised prosperity and luxury. It even suggested an abundant harvest. Both of these were necessary for group survival. Thinness signified sterility and penury. At a time of frequent famines, thinness was considered as a messenger of death [14]. This evaluation of the physical attributes of females has never occurred in the animal kingdom, where the males possessing greater size and brighter colours (as well as other characteristics) are the ones to conduct courtship.

### 14.3.2 From the Classical World to the Eighteenth Century

In Classical Greece, the attractiveness of the male body took precedence over that of the female. The cult of the male form, including being in good physical condition within the broader context of understanding the body-mind duality in this culture, represents a very different viewpoint from the subsequent concepts defended by Christianity [8].

In Ancient Greek, the word *limos* means "hunger". On adding the word *bou*, which means "a large amount", or *boul*, which means "ox", the resulting term may be translated as "voracious hunger" or "ravenous hunger".

In 970 BC, Xenophon, in the *Anabasis*, described for the first time in Western culture what we now see as bulimic practices. This referred to the eating habits of some Greek soldiers who withdrew to the mountains of Asia Minor after mounting a campaign against Artaxerxes. It is interesting to note that these soldiers received only scant food rations [15]. Hippocrates distinguished *boulimos*, unhealthy hunger, from ordinary hunger. Aristophanes also used the same term in its meaning of "ravenous hunger".

For the Greeks, the measurement of beauty was the aureal proportion, a practical application of their cult of balance. Hippocrates defines in his work the functioning of the body according to physical elements and bodily humours. Health was synonymous with a state where there is proper balance between the humours, while illness appeared as an imbalance in the interaction between them. The female body is considered weaker and more prone to illness.

In the history of psychiatry, the pathological condition of the female body is a constant. For Greeks, hysteria is a word that means "uterus". Plato in his text *Timaeus* (which has entered Western medical tradition through Galen and the Hippocratic writers) asserted that:

.... the matrix or womb in women, which is a living creature within them which longs to bear children. And if it is left unfertilized long beyond the normal time, it causes extreme unrest, strays about the body, blocks the channels of the breath and causes in consequences acute distress and disorders of all kinds. If it is not "appeased by passion and love" the womb moved from its natural position within the body and, attaching itself to soft internal tissues, gave rise to a wide variety of symptomatic disturbances. (Plato 1955, p. 123)

Hippocrates identified the relevance for health of such factors as dietary restraint, an increase in exercise and a reduction in sleep. Hippocrates was the first to indicate the risk to health of obesity, which he associated with the existence of menstrual changes and infertility in women. He explained infertility as a consequence of the fat accumulated in obese people, hindering intercourse and closing the mouth of the womb. Hippocrates saw the therapeutic rules for combating obesity as having a tough job, sleeping in a hard bed, eating only once a day and preferably food with a high fat content (in order to be satiated quickly) and walking naked as much as possible. More specifically, food needed to be taken soon after a hard day's work when the body was still tired and one had difficulty breathing.

Ancient Rome disagreed with Classical Greece in most of its body aesthetic criteria. The Romans were more interested in the peculiarities of faces and people [8]. However, they produced a culture that valued thinness or at least tended to avoid excess of weight. As they enjoyed copious banquets, they used vomit as a means of regulating weight. Both bingeing and vomiting were socially accepted and therefore were integrated into their culture, especially in the middle and upper classes. Roman banquets could include over 20 courses. Whenever the stomach of the diners was full, they went to an adjoining room, the *vomitorium*, where vomiting enabled them

to recommence their blowout. In his treatise on morality, *Dialogi*, Seneca writes in *De Consolatione ad Helviam* about Roman practices: "Vomunt ut edant, edunt ut vomant" (they vomit to eat and they eat to vomit).

Moreover, a woman was appreciated fundamentally for her role as mother in which she was obliged to present many children to a state which needed them to ensure its survival against the continuous threat of the intrigues of its enemies [16]. In return, this led some women to rebel against their fate, as was denounced in the writings of the philosopher Favorinus: "not only do they refuse to breastfeed their children but they resort to a thousand tricks to avoid becoming mothers". Metrodora, a female physician of Greek origin who practised in the Rome of the first century, wrote a treatise on female illnesses. In her chapter devoted to young women, she described *sitergia*, a Greek term literally means rejection of food.

Medieval cooking stems from a reaction to the banquets and abuse of wine that characterised the final days of the Roman Empire. Just like the Egyptian hermits and anchorites who barely ate enough to stay alive, the early Christians and some mystics interpreted food restraint from the religious viewpoint and practised fasting as a penance (intensification of prayer, rejection of the world) and as a means of reaching the highest, purest spiritual state. "An emaciated body will pass more easily through the narrow gate of paradise; a light body will resurrect more quickly and a consumed body will be better preserved in the tomb" (Tertullian). Religious asceticism constituted a means of being above bodily needs and reaching a "pure" spiritual state.

In the Middle Ages, the reproductive woman and her figure were the predominant value on the aesthetic scale. The female body had to denote corpulence, with a rounded belly as the symbol of fertility. It is significant that the ruling aristocracy then was generically called *popolo grasso* (plump people), while the working classes are recognised as *popolo magro* (thin people) [10].

The appreciation of fatness implied the rejection of thinness, that is, a flight from hunger, illness and poverty. The body and its functions were not hidden; everything was natural. It was possible even to defecate or have sexual intercourse in public without creating a scandal or a commotion [17].

For its part, Christian doctrine viewed the body as weak and sinful, requiring of strict control and regulation by the mind. Ascesis was the path that led to perfection. Flesh needed to be overcome; the spirit had to triumph. Fasting was the ideal way to achieve this. Religious demands existed so that women would detest their bodies. The less their flesh was consented to, the holier they were. In this way, many women from comfortable classes left their homes and families for religious life rather than marriage, the only way out for a woman; the convent also offered them the chance to receive an education which otherwise would have been impossible. We should remember that these were patriarchal societies where women were second-class citizens. At the Council of Trent in 1563, the Inquisition established guidelines to be followed by women whose bodies did not belong to them. If they were virgins, they belonged to God who could call on them, and, if not, they belonged to their husbands. If they were possessed, they belonged to the devil and were persecuted and tortured; at prior councils such as Nicea, it was discussed whether women had souls.

Indeed, fasting was a symbol of medieval ascesis. But while monks fasted to purify their bodies and strengthen themselves before the temptations of the outside world, women sought the liberation of their own bodies, which were considered in Christian thought as the true origin of sin. We should not forget that Christianity blamed original sin on Eve; she was the one to offer the apple to Adam, whose weakness was to accept it. Eve's original sin was in herself, while for Adam sin was positioned in the outside world. It was in this context where "holy anorexia" (anorexia suffered by following God), appears, as noted by Rudolph Bell, a history professor at the University of Rutgers [18]. Bell reviewed the biographies of over 261 Italian nuns from the thirteenth century to the present day and found that many may have suffered anorexia nervosa. One was St. Liberata (St. Wilgefortis, a name that comes from Latin and means "strong virgin"). She challenged her father, the King of Portugal, by refusing to eat when he arranged her marriage. Asking God to take away her beauty, her body became hairy (lanugo, due to malnutrition) and she even grew a beard. Her father decided to have her crucified rather than allowing her to enter a convent. Another example was St. Catherine of Siena. When she was 26, her idea of devoting her life to God clashed with her father's plan to marry her off. This situation led her to lock herself in her bedroom and refuse to eat. In the end, she entered the Dominicans' order, although she had lost half her body weight. Her head may be found in the church of Saint Domingo in Siena as a relic exhibited behind a glass urn; the rest of her body is buried in Rome; and one of her feet is in Venice, as an example of holiness. She said in her final writings that she believed she was ill.

In the Renaissance, and principally in the various European courts, the body and overall appearance were granted a significance that was unknown in Medieval Europe. In the court, food was usually guaranteed and habituation to it enabled it to be savoured. Physical strength and the battle gave way to personal intrigues. The maintaining or improving of social status did not depend as much on fertility or body frame as on the social importance attributed to an individual, this being down to bearing, speech, manners and appearance [19]. The body became socialised.

From the fourteenth and fifteenth centuries, anorexia began to spread from the convents and the abbeys like an epidemic. This phase, called "secularisation of anorexia", continued into the sixteenth and seventeenth centuries. The miraculous maidens appeared, most of them youngsters of humble origins who, by refusing food, attempted to attain the sublime, perfection and purity and, in the process, improve their social and economic standing.

Anorexia was progressively stripped of its religious background and moved to a more vulgar circle, with the appearance of the so-called artists of hunger, who would exhibit at fairs and could even be seen in some cafés. Kafka described one of them in his story *An artist of hunger*. As Paul Auster asserted in his essay *The Art of Hunger* [20], these new secularised anorexics did not fast in the same way nor for the same reasons as the mystic of the past. Their rejection of food was not an attempt to reject earthly life in order to gain one in heaven. It was simply a refusal to live of the life into which they had been born. The more prolonged their fasting is, the greater the space that death occupied in their lives. Their fasting was a contradiction: to go on with it meant death but death also ended fasting. Therefore, they needed to stay alive, but only to remain on the edge of the abyss, as reflected in the novel *Hunger* by the Nobel Prize winner, Knut Hamsum.

From the fifteenth to the eighteenth centuries, the large woman remained the model, however. This woman, even when obese, was considered to be attractive and elegant [8], like the fleshy women portrayed by the Italian Renaissance painter, Titian.

The history of the Western world, and that of Europe in particular, is littered with characters, eras and social groups in which bingeing and then vomiting were practised assiduously. These vomiting individuals included England's Henry VIII and his closest subjects, Pope Alexander Borgia and his courtiers, Bruegel's playful Flemish peasants and Bosch's lacerating throngs and, much more recently, Britain's King Edward or US President William Taft (all of them being men, by the way) [21].

According to the Encyclopaedia Britannica of 1797, bulimia is defined as a disease in which the person is affected by a desire to eat insatiably and perpetually, and unless this is satisfied, it leads to fainting. Motherby, in 1785, had already described three types of bulimia: that characteristic of pure hunger, that where hunger ends in vomiting and that associated with fainting.

We find the most complete reference to this disorder in James, who in 1743 devoted two pages to describing *boulimos* [6]. He noticed that while some patients experience the complication of vomiting after ingesting large amounts of food, others do not. He distinguished in this way between *boulimos* and *caninus apetitus*. Basing his approaches on Galen, he remarked that *boulimos* was caused by an acidic humour contained in the stomach, which produced intense but misleading indications of hunger.

At around the same time, the word "anorexia" was used in medical literature as a synonym for lack of appetite. The first medical approximation to the disorder came in 1689 from Richard Morton, the court physician of William II. In his work *Phthisiologia, seu Exercitationes de phthisi*, which is translated into English and subtitled *A Treatise of Consumptions*, he described a condition of anorexia nervosa with great accuracy. He related the condition of an adolescent boy of 16 and that of a young man of 18, of which he said: "I cannot recall in all my life anyone who was so involved with living and so consumed" [22].

Subsequently, in 1764, Whytt described "nervous atrophy", based on the case of a boy of 14 who, after a period of loss of appetite and weight loss, went through a phase of impulsive ingestion, without the symptoms being attributable to any known pathology. In describing the case, Whytt referred for the first time to bradycardia as a symptom associated with cachexia.

In 1798 in France, Pinel published his *Nosographie Philosophique* [23] where he included anorexia, bulimia and pica in the chapter on digestive neuroses. The writer considered anorexia to be a frequently presented gastric neurosis.

### 14.3.3 The Nineteenth Century: The Victorian Model

Many of our sociocultural values appeared to develop and become consolidated in this period, including the origin of slimming culture. Among them were the existence of a growing bourgeoisie, the development of urban centres, the industrial revolution and, subsequently, the development of the media [11].

In 1840, Imbert's *Traité théorique et pratiqué des maladies de femmes* was published. He included anorexia, bulimia and pica as stomach neuroses and distinguished gastric anorexia from anorexia nervosa, attributing the former to a digestive disorder of gastric origin and the latter to brain alterations. He also remarked on how patients with anorexia nervosa showed a loss of appetite and a great variety of neurotic signs, becoming melancholy, choleric and fearful.

Two decades later, Marcé (1860), a physician from the University of Paris, described a form of hypochondriacal delirium that was consecutive to dyspepsia and was characterised by rejection of food. Patients, either due to loss of appetite or discomfort caused by digestion, reach the crazed conclusion that they could not or must not eat.

It was in the midst of the Victorian age when the contributions by William Gull and Ernest-Charles Lasègue appeared. These two authors began the scientific study of anorexia nervosa. Gull, Queen Victoria's physician, described "hysterical apepsia" in London in 1868. He said this was a typical condition of young women which led to emaciation and which was initially felt to be of organic origin [24, 25].

Soon afterward in Paris, in 1873, Lasègue published the manuscript *De la Anorèxie Hysterique* where he described the cases of various patients of between 18 and 22. He emphasised the emotional aetiology of the disease, presenting it as a perversion or intellectual anomaly and indicating at its heart perturbed interpersonal relationships and, on occasions, unconscious desires as basic personality traits of such patients [26].

In his description, Lasègue added something that we feel is important, bearing in mind subsequent interpretations of the anorexic syndrome: "fasting is not total and is completely unconnected with the rejection of foods practiced by the melancholy". As well as underlining emotional alterations resulting from the transition to an adult age in the aetiology of the anorexic syndrome, he also indicated the existence of social aspects for the first time. He is probably the first doctor to consider the possibility of interfamily conflict between anorexic patients and their parents [27].

Six months later, Gull (in 1874) used the term "anorexia nervosa" for the first time. This was in an article in which he described the findings derived from the malnutrition of three anorexic patients, without paying attention to emotional aspects. This new name for the disease came about for two reasons: the rejection of the term "apepsia" as no alterations in digestion of food were observed and the rejection of the term "hysteria" on specifying that these patients did not present the clinical history of the typical hysteric. It recognised, however, the role of different psychological aspects that may well intervene in the etiopathogenesis of the anorexic condition.

Gender perspective cannot be ignored in the genesis and maintaining of the eating behavioural disorders suffered mainly by women. Men and women have different ways of living their bodies. At that time in history, women lacked the right to vote, they had no access to university, and they did not even have access to the inheritance of their parents unless they formed a good marriage. Hence, anorexia nervosa may be understood as a challenge to the established order. It questions health criteria and questions the symptoms as social by incarnating a body exposed to the gaze. The appearance of the disease as a clinical diagnosis occurred at the same time as the appearance of novels written by women, such as *Wuthering Heights* 

(initially published under a male pseudonym as this was the only way to get published) by Emily Brönte (who was suspected of suffering from anorexia nervosa) and including the work of Jane Austen. All the female characters in literature up to that time had only been seen from the viewpoint of their relationship with the opposite sex. "And this is such a small part of the life of a woman" (as Virginia Woolf said). Love was the only role possible for women. Woolf [28] wrote that if in Shakespeare's tragedies men had been presented only as lovers of women and never as friends of men, as thinkers and as dreamers: "What few roles they could play! How literature would suffer!" This is how women have suffered in history, with the symptomatic expression of inequality and social unfairness being many times anorexic symptoms. Many women allow themselves to be locked in the "prison of the body" represented by anorexia nervosa. "Hunger, insomnia, disease" were the three words Oscar Wilde used to describe his time in Reading prison in letters to friends and relatives. The problems of prison are also problems of the body, and, in this case, prison became the body for these women.

The prestigious French physician Charcot, known for his study of hysteria at La Salpêtrière Hospital in 1889, proposed parentectomy (the isolation of the patient from her/his family) as a therapeutic formula for those parents with anorexia nervosa. He was the first to indicate "fear of obesity" as a reason for refusing to eat.

Meanwhile, Lord Byron was the prototype of the romantic writer whose fame and literary prestige helped to publicise his ideas on the body and the mind. He fasted to clear his mind; he defined himself as "ascetic vegetable eater"; he abhorred fatness; in his view, it symbolised lethargy, clumsiness and stupidity. His food restraint was accompanied by physical exercise:

I don't find it at all hard to fast for 48 hours. Two years ago, I lived permanently on a diet of a thin slice of bread for breakfast, a dinner of fresh vegetables, only green tea and carbonated water in the interim. These days, when I start thinking that I am consuming, I chew tobacco, mastic gum or laudanum... [30].

The first description of a diet was published in 1863. In it, a layman explained the way to reduce food ingestion with the aim of losing weight. This appeared in all the books that referred to food over subsequent years.

The image of women historically perceived and conceived in terms of their reproductive function started to show a clear change with the development of science. At this time, talk began of combating obesity by reducing food ingestion and increasing physical exercise. In fact, this was a return to Hippocratic advice.

In 1875, the concept of energy balance was described, and it was postulated that greater intake of the foods the body needed led to an excess of weight. Greed or gluttony emerged as the principal cause of obesity. It was also in this period that two causes of obesity were described. On the one hand, there was talk of obesity caused by a physical problem (with symptoms similar to Prader-Willi Syndrome) and, on the other, obesity due to hyperphagia secondary to a defect in the person's character (with symptoms resembling Pickwick syndrome).

It may be asserted that it was really in the nineteenth century that the first progress in the study of obesity was made, with an important role played by writers who

worked almost simultaneously in Edinburgh, Paris and, subsequently, Germany. In fact, the interest in obesity in the latter country gave rise to numerous physiological theories, some of which are discussed even today [29]. These include body composition, energy conservation, the excess of fat cells as a cause of obesity and the concept of family obesity. In late nineteenth-century Belgium, Quetelet developed the index which bears his name and which relates a person's weight in kilogrammes to the square of their height in metres. Subsequently, following the introduction of the Lavoisier calorimeter, it was suspected that obesity could well be a metabolic disorder.

### 14.3.4 Our Most Recent History: The Twentieth Century

In the twentieth century, a true explosion occurred, and anorexia nervosa and bulimia nervosa increased to almost epidemic proportions. Specific intervention programmes were created for these pathologies, and there were major advances in research into obesity. Why was there such a large increase in the number of cases?

Psychopathology, as Jules Henry said, "is the final outcome of all that is wrong with a culture [30]. Nowhere is this more strikingly true than in anorexia and bulimia, which were barely known two centuries ago but which have reached epidemic proportions in the twentieth century. Far from being the result of a superficial fashion phenomenon, these disorders reflect our attention to some of the central ills of our culture, from our historical heritage of disdain for the body, to our modern fear of loss of control over our future, to the disquieting meaning of contemporary beauty ideals in an era of greater female presence and power than ever before" [31].

Changes in the incidence of anorexia have been dramatic. In 1945, when Ludwig Binswanger chronicled the now famous case of Ellen West, he said, "from a psychiatric point of view, we are dealing here with something new, with a new symptom" [32].

Anorexia nervosa is clearly, as Paul Garfinkel and David Garner have described it, a multidimensional disorder. It has familial, perceptual, cognitive and biological factors that interact in varying combinations in different individuals to produce a final common pathway [33].

Bray [34] cited the principal areas connected with the scientific developments over the century: the study of food intake and its control and the use of behavioural measures for losing weight.

Habermas [35], who studied the historic concept of the voracious appetite (*heisshunger*), saw bulimia nervosa as a much more recent disorder than anorexia nervosa and placed its origin at the start of the twentieth century. He also believed that pressure and the struggle of doctors against obesity lay in the origin of this phenomenon.

The contraceptive pill revolution allowed women to separate sex from procreation as women on the pill could control their fertility. However, although it was acceptable for single men to have sex, when women showed the same attitude, it proved disturbing for 1950s Western society. At that time, contrasting with the middle-class women, who were once again out of the factories and safely immured

at home, the dominant ideal of female beauty was exemplified by Marilyn Monroe. She was often described as femininity incarnate, femaleness embodied.

It is necessary to explore why it is women who are more oppressed by what Kim Chernin calls "the tyranny of slenderness". This particular oppression is a post-1960s, post-feminist phenomenon.

Gerald Russell published a paper describing and naming bulimia nervosa in 1979. It was not long afterward that the disorder was recognised as a common problem affecting young women in Western societies.

In the early 1980s, attention began to turn to the significance of cultural factors in the pathogenesis of eating disorders. We should ask why our culture is so obsessed with keeping our bodies slim, pert and young that when 500 people were polled about what they feared most in the world, 190 replied: "getting fat". This fear is more bizarre than the anorectic's misperceptions of her body image or the bulimic's compulsive vomiting. This is the desperate placing of our bodies into arenas of control, perhaps one of the arenas of control that remained available to us in the twentieth century.

In the 1980s, a student of Bordo's described Marilyn Monroe as "a cow". Was this merely a change in what hip, breast and waist sizes were considered attractive? Or had the very idea of incarnate femaleness taken on a different meaning, different associations and the capacity to set up different fantasies and images for the culture of the decade? [36].

Psychopathologies that develop within a culture, far from being anomalies or aberrations, are characteristic expressions of that culture; indeed, they are the crystallisation of much that is wrong with it. Every age, Christopher Lasch says, develops its own peculiar forms of pathology, which express its underlying structure in an exaggerated manner.

The greater risk for females of developing eating disorders has been attributed to social pressure in a male-dominated world. Background cultural factors are often implicated, not only fashion but also more relevant background structure and social norms.

In the 1980s, Bordo claimed that anorexia is the product of three cultural axes which mark the socially and culturally mediated relationship that human beings have with their bodies and the way that, through this mediation, they are normalised. Firstly, there is a dualistic axis upon the body, which is felt to be separated from the experience of being a person and a mind (Descartes and his separation between mind and body). The second axis is body control, where the body is seen as a mute instrument to be controlled by the person. The third axis is gender/power in which women are subjected to images of female beauty that include youthfulness and slenderness. This is the ideal image of a woman that is not yet a woman and the tendency of anorectics to retain their adolescence and to resist the more developed female form that is often perceived as fatter and more curved.

Bordo remarked that the body of the anorectic is an illustration of how deeply power relations are etched on our bodies that serve them [37].

Sheila MacLeod also wrote as a recovering anorectic in a text that took an existential approach to anorexia nervosa. Female identity is seen as central to the state

of anorexia nervosa that MacLeod viewed as a manifestation of an existential crisis resulting from women's confusion about their being-in-the-world. She focused on the meaning of anorexia nervosa serving as a symbol for both, oppression and resistance, with starvation having its own aesthetic [38].

MacLeod viewed anorexia nervosa as a particular existential dilemma facing women and a specific aspect of female identity. Anorexia nervosa is still constructed as a disease condition that is gendered.

Far from being fundamentally stable, a cultural constant to which we must contrast all culturally relative and institutional forms, the body is assumed to be constantly "in the grip", as Foucault put it, of cultural practices. There is no "natural body". Cultural practices are already and always inscribed, as Foucault underlined, on our bodies and their materiality, forces, energies, sensations and pleasures. Our bodies, no less than anything else that is human, are constituted by culture.

Women, besides having bodies, are also associated with the body, which has always been considered the sphere of women in family life, mythology and in scientific, philosophical, and religious ideology. This is related to the maintenance of power relations between sexes over history.

Anorexia is not a philosophical attitude but a debilitating affliction. It is quite often a highly conscious and articulate scheme of images and associations presented in these women. In this battle, thinness represents a triumph of the will over the body, and the thin body (that is to say, the nonbody) is associated with absolute purity, hyper-intellectuality and transcendence of the flesh. Fat is associated with the tainting of matter and flesh, wantonness, mental stupor and mental decay.

In early Christianity, individuals were exhorted to offset the threat raised by bodily appetites through fasting. Present-day societies have adopted a secular counterpart; it is called the diet. Lacking a moral vocabulary, contemporary societies have projected the notions of good and bad on the images of our own bodies: the idea of God (perfection, purity and kindliness) is now enclosed in the image of thinness; while that of the Devil (sloth, corruption through appetite and avarice) is incarnated in fatness. We are certainly closer to puritanical tradition than to the early Christians, particularly in our fight for individual self-regulation and our devotion to the work ethic." [17].

Indeed, obesity and eating behaviour disorders increasingly impact our culture with greater prevalence. There is no break in continuity between the attitudes and behaviours with regard to the body and the diet of the general population, subclinical eating disorders and actual clinical cases [11].

Nowadays, religion has lost its privileged position. Our dietary concerns are closely linked to two reasons: aesthetics and death. To be "good-looking", "young" and "thin" is an imperious narcissistic necessity, quality of life or new social acquisition, overcoming ageing as a surrogate for immortality. Gaining weight is dangerous because it leads to death in the short or long term. There is now a dark and imperious need for health and beauty, gripped to the self of each individual, that has taken the place of ethics and religion [5].

People have grown increasingly self-centred in today's Western world. Wars may be declared, entire regions may be wiped away by earthquakes, unemployment is

bellowing at the door, and there is a global economic crisis, but what is most important for certain patients is whether they have been able to control their binges or the lack of control of various types of impulses. The cult of the self is characteristic of all eras, but this way of making the body itself the centre of everything may lead ethically and culturally to a cul-de-sac [5]. There is the socially transmitted belief that drinking abundant amounts of water is healthy "for internal cleansing", and this has a moral connotation. There is guilt in being fat. The only obsession is weight and the body aesthetic on which thinness and youth depend.

Moreover, we should not ignore the impact of globalisation on the world food system. In a world where more food is produced than at any other time in history, over 10% of the population is hungry. The hunger of those 800 million people coincides with another historic record: "globesity", over a billion people are overweight. The obese and the hungry are interconnected. Hunger and obesity are symptoms of the same problem. The road that may lead to eradicating hunger would serve to prevent global epidemics of diabetes and heart complaints. There are moral excuses that act to calm a troubled conscience: the poor are hungry because they are lazy, or the rich are fat because they eat fattening food. The prevalence of hunger and obesity affects people too often and in too many places for it to be the consequence of any personal defect. In Mexico, a developing country, there are more obese adolescents than ever, although the number of poor Mexicans is growing. The crucial factor is not economic revenue but the proximity to the border and the habits of their northern neighbours whose processed food is rich in fats and sugar [32].

The weight of sociocultural factors in the genesis of eating behaviour disorders is a reality, as described in this historical introduction. So is the role of gender, the distribution of power, ethnicity and social class and wealth distribution at global level. Everything influences what we eat. We are what we eat and we eat what we are, as we said at the beginning of this chapter.

### 14.4 Psychopathology of Eating Behaviour

Eating disorders are the pathology that is most frequently presented by young people. Their medical complications, comorbidity and seriousness make them eligible for inclusion here. Since the first case report of anorexia nervosa appeared in the literature over 125 years ago, much has been learned about eating disorders. Presently, 11 distinct eating disorders are categorised in the DSM-5 [39].

We have divided this section into four parts. The first is devoted to the three syndromes that are most frequently presented in habitual clinical practice and that fundamentally affect women as often as they did two centuries ago: anorexia nervosa (AN), bulimia nervosa (BN) and binge eating disorder (BED). The second part contains eating disorders that have been recently included in the DSM-5 in the categories of other specified feeding or eating disorder (OSFED) and unspecified feeding or eating disorder (UFED). In the third part, we are going to describe feeding and eating disorders which are more frequent in children such as pica and rumination (which are presented equally by both sexes) and avoidant restrictive food intake

disorder (ARFID). Finally, there is a mention of new eating behaviours that are not included by the moment in the DSM-5 [40].

Approximately 95% of people with an eating disorder are 12–25 years of age. Adjusting for age, ethnicity/race, education and income categories, odds of lifetime and 12-month diagnoses of all three EDs were significantly greater for women than men, particularly for AN and BN [41]. Although 90% of patients with an eating disorder are female, the incidence of diagnosed eating disorders in males appears to be increasing. The aetiology of eating disorders is unknown and probably multifactorial; it is thought that a combination of biological, psychological and social factors contributes to the illness. We know EDs tend to cluster in families [39, 42]. Environmental influences include societal idealisations about weight and body shape [42]. Epidemiology of each disorder is more accurately described in each section.

### 14.5 Anorexia Nervosa

### 14.5.1 Introduction

Anorexia nervosa (AN) is a diagnostic term that literally means neurotic loss of appetite. Sir William Gull first reported a case of AN in the Lancet in 1888.

### 14.5.2 Epidemiological Data

A study conducted in the United States with a nationally representative sample of adults assessed with diagnostic interviews provides new prevalence estimates of EDs based on DSM-5. Prevalence estimates of lifetime AN is between 0.80% and 3.6 [41–44]. Findings regarding the mean age of onset for AN 19.3. Discrepancies in prevalence estimates underscore the need of more population-based studies with large samples using diagnostic interviews.

### 14.5.3 Clinical Features

The distinguishing clinical feature of anorexia nervosa is extreme restriction of food intake, resulting in extensive weight loss (or a failure to gain weight during growth periods). Under the criterion of DSM-IVR, patients might weigh less than 85% of what is expected but in DSM-5 criteria do not refer to a specific degree of weight loss required for the diagnosis but instead provide guidelines for specifying the severity of weight loss [40, 42, 45]. The other essential aspects are the individual wishes to be underweight making conscious attempts to avoid gaining weight and a distorted image or lack of recognition of low weight. Despite the fact that individuals with anorexia nervosa are by definition underweight, they are convinced that they will become substantially overweight if they cease their vigorous efforts to remain in control of their eating and exercising. There is a disturbance in the way in which

one's body weight or shape is experienced, an undue influence of body weight on self-evaluation or a denial of the seriousness of the current low body weight. Individuals with anorexia nervosa usually perceive their size accurately. The problem lies more often in the judgement they make about the size they see. This is determined by sociocultural factors and affects women more frequently. It is also striking that this fear of becoming fat typically intensifies, as more weight is lost.

Women with anorexia nervosa often do not menstruate although amenorrhea is no longer required as criterion of AN in DSM-5. Most women have progressed normally through pubertal development and have begun to menstruate before the onset of the eating disorder. However, some girls develop anorexia nervosa before the onset of menstruation.

Included in the differential diagnosis are gastrointestinal disorders, such as inflammatory bowel disease and celiac disease, endocrinological diseases, such as hyperthyroidism or Addison's disease, and other chronic illness that may lead to weight loss, such as an underlying malignancy [39].

Once anorexia nervosa has been diagnosed, the clinician is asked to classify the patient into two groups [46]:

- Restricting type: during the current episode of anorexia nervosa, the person loses weight purely by dieting and exercising and has not regularly engaged in binge eating or purging behaviour.
- Purging behaviour: during the current episode of anorexia nervosa, the person
  has regularly engaged in binge eating or purging behaviour (i.e. self-induced
  vomiting or the misuse of laxatives, diuretics or enemas).

The most powerful illustration of the effects of restrictive dieting and weight loss on behaviour is an experimental study conducted in 1950 by Ancel Keys at the University of Minnesota. The experiment involved 36 carefully chosen, young, healthy, psychologically normal men who restricted their caloric intake for 6 months as an alternative to military service. What makes the study so important is that many of the experiences observed in the volunteers were the same as those patients with eating disorders. The question is that while anorexia nervosa is mostly presented by women, only men were used for this study. What does this mean? Table 14.2 shows the effects of starvation in the study.

Table 14.3 presents common reasoning errors among patients with eating disorders, described by Garner and Garfinkel [33].

When a woman insists that the only way to succeed in our culture is to be thin, she could be described, by clinicians, as possessing distorted reasoning or misperception of reality. But for most people in Western culture, especially women, slenderness is equated with competence, self-control and intelligence. There is no firm demarcation between the normal and the pathological, as most women are affected in some way by the cultural construction of female beauty as involving slenderness.

#### Table 14.2 Effects of starvation

Attitudes and behaviour toward food

Food preoccupation

Collection of recipes, cookbooks and menus

Unusual eating habits

Increased consumption of coffee, tea and spices

Gum chewing

Binge eating

Emotional and social changes

Depression

Anxiety

Irritability, anger

Lability

Psychotic episodes

Personality changes on psychological tests

Decreased self-esteem

Social withdrawal

Cognitive changes

Decreased concentration

Poor judgement

Apathy

Physical changes

Sleep disturbances

Weakness

Gastrointestinal disturbances

Hypersensitivity to noise and light

Oedema (water retention, particularly in ankles)

Hypothermia and feeling cold

Paraesthesia

Decreased metabolic rate

Decreased sexual interest

Dry skin

Hair loss

#### **Table 14.3** Reasoning errors

Selective abstraction or basing a conclusion on isolated details while ignoring contradictory and more salient evidence

Overgeneralisation or extracting a rule on the basis of one event and applying it to other dissimilar situations

Magnification, or overestimation of the significance of undesirable consequent events. Stimuli are embellished with surplus not supported by an objective analysis

Dichotomous or all-or-none reasoning or thinking in extreme and absolute terms. Events can be only black or white, right or wrong, good or bad

Personalisation and self-reference or egocentric interpretations of interpersonal events or over-interpretations of events relating to the self

Superstitious thinking, or believing in the cause-effect relationship of non-contingent events (Garner and Garfinkel)

This means that most women have some sort of problem in relation to food consumption. There is a continuum of eating problems from dieting to the extremes of anorexia and bulimia nervosa.

Body image disturbance plays a prominent role in the psychopathology of eating disorders. Historically, either the perceptual or the cognitive-affective components of body image disturbance (body image distortion or body image dissatisfaction) have been incorporated into the diagnostic criteria for both anorexia nervosa and bulimia nervosa and focus on the influence of body shape and weight on self-evaluation.

Body dissatisfaction is strongly associated with quality of life impairment among both male and female adults, and the strength of this relationship is comparable between the sexes. In a study performed among adolescent girls and boys in Australia, girls reported higher levels of dissatisfaction than boys. However, the strength of the adverse associations between body dissatisfaction and quality of life impairment did not differ by sex, and this was the case for both physical health-related and psychosocial quality of life domains [47, 48].

Multiple factors of body image disturbance have been identified. These include body image distortion, body image dissatisfaction and body image avoidance, which are all highly correlated. Patients with more severe body size distortion may benefit most from treatment that focuses on correction of size and weight overestimation. When body image dissatisfaction is more prominent, modifying negative and distorted thoughts and working toward acceptance of one's body may be indicated. Finally, treatment incorporating exposure to situations that provoke anxiety-provoking thoughts about appearance will be beneficial for those patients who exhibit extreme avoidant behaviours.

The anorectic's distorted image of her body, her inability to see it as anything but too fat, although more extreme, is not radically discontinuous, then, from fairly common female misperceptions [36].

### 14.5.4 Psychological Factors

AN has the lowest rate of psychiatric comorbidities between ED, despite they are still high. In terms of psychological factors, limited coping skills, poor distress tolerance, perfectionism, obsessionism, inflexibility, neuroticism, negative emotionality, harm avoidance, compulsivity, social inhibition, emotional restraint and decreased self-esteem are common traits among those with AN. However, those with AN who also engage in bingeing and purging display more impulsivity and sensation seeking. Those with AN classically tend to have problems with identify formation, autonomy issues and maturity fears. In relation to personality disorders, the restricting subtype of AN is associated with personality disorders such as obsessive-compulsive personality disorder or avoidant personality disorder. Borderline personality disorder is also common, especially among those with binge-purge subtype. Self-injurious

behaviour and suicide attempts are commonly associated with AN as well. AN has a strong association with anxiety and depressive disorders [39, 47].

Hilde Bruch reported that many anorectics talk of having a ghost inside them or surrounding them, "a dictator who dominates me" as one woman describes it; a little dictator, the "other self", was always reported by Bruch. The anorectic's other self, the self of the uncontrollable appetites, the impurities and taints, the flabby will and the tendency to mental torpor, is the body, but it is also the female self [36, 48]. These two selves are perceived as at constant war. But it is the male side, with its associated values of greater spirituality, higher intellectuality and willpower that is being expressed and developed in the anorexic syndrome. For Bordo [36–38], there are two levels of meaning. One has to do with fear and disdain for traditional female roles and social limitation. The other has to do with a deep fear of the female, with all its more night-marish archetypal associations of voracious hungers and sexual insatiability.

Adolescent anorectics express a characteristic fear of growing up to be mature, sexually developed and potentially reproductive women. And indeed, as Bruch reports, many anorectics, when children, dreamt and fantasised about growing up to be boys.

Some authors interpreted these symptoms as a species of unconscious feminist protest, involving anger at the limitations of the traditional female role, rejections of values associated with it and fierce rebellion against allowing their futures to develop in the same direction as their mothers.

For females, the fatness that goes with normal adult body weight will always have had a sexual dimension, serving as it does both direct reproductive and related social and biological purposes, such as its attraction for males. The attempted regulation and control of weight and shape are commonplace among teenage females searching for a greater sense of ownership of the body and its impulses; the success of such attempts leads to enhanced self-esteem.

The greater risk for females of developing eating disorders has been attributed to social pressure in a male-dominated world. Background cultural factors are often implicated, not only fashion but also more relevant background structure and social norms.

Anorexia nervosa in a multidimensional model explanation should include the crucial dimension of culture and the construction of gender to understand the socio-cultural analysis of the phenomenon. This is gender as primary and productive in the emergency of anorexia, rather than as merely a contributing factor.

### 14.5.5 Medical Complications

Recent studies have demonstrated that the standard mortality rate for patients with anorexia nervosa approaches 12 times those of age-matched controls [49, 50]. The main medical complications are resumed in Table 14.4.

| System                | Complication   |
|-----------------------|--|
| Bone                  | Osteopenia, osteoporosis   |
| Haematologic          | Anaemia, leukopenia, thrombocytopenia  |
| Neurologic            | Brain matter loss, Wernicke-Korsakoff syndrome   |
| Gastrointestinal      | Dysphagia, constipation, reflux, gastroparesis, acute gastric dilatation, superior mesenteric artery syndrome, hepatic transaminase level disturbances |
| Cardiac               | Bradycardia, hypotension, interlead variability of QT interval   |
| Endocrine             | Pituitary hypogonadism, low testosterone, low oestrogen, euthyroid sick syndrome, hypoglycaemia  |
| Pulmonary             | Spontaneous pneumothorax   |
| Electrolyte imbalance | Hyponatremia, hypokalaemia   |

**Table 14.4** Main medical complications of Anorexia Nervosa

#### 14.5.6 Treatment

Indications for hospitalisation include significant electrolyte abnormalities, arrhythmias or severe bradycardia, rapid persistent weight loss in spite of outpatient therapy and serious comorbid medical or psychiatric conditions, including suicidal ideation. The focus of initial treatment for patients who have anorexia nervosa with cachexia is restoring nutritional health, with weight gain as a surrogate marker. Feeding tubes may be needed in severe cases when the patient has a high resistance to eating. A reasonable target for weight restoration is 90% of the average weight expected for the patient's age, height and sex. Psychotherapy is the foundation for successful treatment of an eating disorder. Cognitive behavioural therapy (CBT), dialectical behavioural therapy (DBT), interpersonal therapy (IPT), cognitive remediation therapy (CRT) and acceptance commitment therapy (ACT) are all therapies that have been studied in AN and produced varying results [39].

Studies have shown only limited benefit of medications in the treatment of AN. Antidepressants, including selective serotonin reuptake inhibitors (SSRIs), may help mitigate symptoms of depression and suicidal ideation in patients with anorexia nervosa. However, they have not proved beneficial in facilitating weight restoration or preventing relapse. Although case reports and recent preliminary studies have suggested a role for atypical antipsychotics such as olanzapine (Zyprexa), controlled studies have not demonstrated significant benefit in patients with anorexia nervosa [42].

### 14.5.7 Prognosis

Although approximately one-half of patients with anorexia nervosa fully recover, about 30% achieve only partial recovery, and 20% remain chronically ill.

Anorexia nervosa has the highest mortality rate of any mental health disorder, with an estimated all-cause standardised mortality ratio of 1.7–5.9% [42]. Mortality

can be secondary to underlying medical complications or suicide. While most deaths from AN are thought to be due to cardiac complications, approximately one in five are thought to be from suicide. Special attention should be paid to assessing safety issues, including suicidality and self-injurious behaviour [39].

### 14.6 Bulimia Nervosa

#### 14.6.1 Introduction

From *bou*, ox and *limos*, hunger was used in Greece to define a devouring hunger. The term bolism (*bolisme*) appeared in all French medical treatises at least until the fourteenth century, although Pinel, in his *Nosographie Philosophique*, conceived bulimia as a morbid type consistent with "hunger which is too intense and often insatiable" and included it in the "neuroses of the nutritional functions". During the nineteenth century, the term maintained a semiological meaning synonymous with terms like *citorexia* and others such as *hyperorexia*, *hyperphagy* and *sitomania* [1]. In the latter half of the twentieth century, English literature established the nosological nature of bulimia nervosa, this being described by Russell as the appearance of recurring episodes of excessive voraciousness followed by inappropriate compensatory behaviour. As in anorexia nervosa, there is both an irrational fear of gaining weight as well as severe alterations in the body image.

### 14.6.2 Epidemiological Data

The lifetime prevalence of BN is predicted to be between 0.28 and 3% with a 12-month prevalence of 0.4% and average age of onset 16–17 years. Gender differences occur, with a women to men ratio of 9:1 [41, 43, 44, 51].

#### 14.6.3 Clinical Features

The salient behavioural characteristic of bulimia nervosa is the frequent occurrence of binge eating episodes. A binge is defined on the basis of two elements: consumption of a large amount of food in less than 2 h and sense of loss of control during the eating episode (the feeling that one cannot stop eating or control what or how one is eating).

A second critical characteristic of bulimia nervosa is that following the eating binges, the individual engages in inappropriate attempts to rid her or himself of weight gain. In clinical samples, the most frequent inappropriate behaviour is self-induced vomiting. Vomiting is often difficult to induce when the illness begins but becomes less difficult and more habitual over time. Many individuals with bulimia nervosa eventually induce vomiting not only following binge episodes but also following the consumption of any meal, whether large or small. They also utilise

medications in an attempt to counteract the binges. Commonly, they use laxatives, diuretics, enemas and thyroid medication. In the DSM-5 criteria for bulimia nervosa, there is a decrease in the average frequency of bingeing and purging from twice to once a week. Other changes are that the subtypes of purging and nonpurging in the DSM-4 were removed and that compensatory behaviours can now be classified depending on frequency in mild (1–3 episodes per week), moderate (4–7 per week), severe (8–13 per week) and extreme (14 or more per week) [42].

Bulimic episodes usually start from the afternoon and generally include every type of food. However, some studies have demonstrated that patients tend to ingest foods considered to be "taboo" for them, foods that they normally reject because they consider them to be high in calories, carbohydrates and fats. The manner of eating also tends to be altered, being rapid and voracious and mixing tastes, textures and foods. The binge frequency varies according to the seriousness of the disorder and morale and finally becomes a routine act. Triggers may be negative feelings related to weight and body shape, life stressors, eating a specific food that has been purposefully avoided or boredom [52].

Between binges, patients maintain a restrictive diet or even fast, which primes and facilitates the episodes of uncontrolled intake. Many patients find difficulty in feeling satiated at the end of a normal meal and may continue eating. This gives rise to continuous weight changes but without the notable weight loss of anorexia nervosa. Bulimic behaviour often begins after a period of diet, and there is a record of having suffered anorexia nervosa in a significant percentage of cases. Individuals with bulimia often go undetected by their families and physicians as their weight may be normal or above normal, and there is often no associated medical complaint that may bring one to seek medical help such as the absence of menses that occurs in AN. Individuals with bulimia may be reluctant to share their symptoms due to secrecy and shame over the binge or purge behaviours [52].

The third and final aspect in the characterisation of bulimia is persistent concern over figure and weight, with a morbid fear of weight gain. For many authors, this is the nuclear psychopathological aspect as it leads the patient to exclusive self-evaluation in terms of weight and figure.

# 14.6.4 Psychological Factors

Most bulimic patients present depressive symptoms such as sadness, guilt feelings, low self-esteem and suicidal thoughts. High anxiety levels form an inseparable part of bulimic behaviour. The moments prior to a binge are characterised by unease, excitation, tension and an imperious desire to eat. In this way, anxiety and dysphoria accompany and trigger most binges in bulimic patients. After the loss of control, anxiety may be reduced, and subsequently there is an increase in guilt feelings, low self-esteem and fear of growing fat, leading the patient to cause her or himself to vomit. As well as the anxiety associated with the binge, high levels of anxiety between episodes are presented.

Abuse of substances, mainly alcohol, together with kleptomania is among the compulsive behaviours most frequently found in these patients. Many of them present borderline personality features and interpersonal relationship problems. It is important to have in mind that BN places patients at a greater risk for suicide and self-injurious behaviour.

## 14.6.5 Medical Complications

Most of the complications are similar to the ones described in AN, but more specific medical complications of purging behaviours including self-induced vomiting and laxative abuse include hypochloremic alkalosis, hypokalaemia, subconjunctival haemorrhage, epistaxis, perimyolysis, oral mucositis, cheilitis, hoarse voice, chronic cough, sialadenosis, oesophageal rupture, rectal prolapse, haemorrhoids, cardiac arrhythmia, seizures and, finally, death. Most dangerous complication in BN is development of an electrolyte imbalance, which can lead in extreme cases to cardiac arrhythmia, seizure and death [50].

#### 14.6.6 Treatment

Standard treatment for bulimia nervosa includes nutritional rehabilitation, psychotherapy and pharmacotherapy, as well as monitoring patients for medical complications. It is known that psychotherapy is more effective for BN compared to AN, largely thought to be due to the weight difference [39]. Clinical trials have shown significant improvement in bulimia nervosa with cognitive behaviour therapy and interpersonal psychotherapy. However, a recent meta-analysis studying the efficacy of psychotherapy in ED published in 2018 indicates that any psychotherapy will be equally effective [53]. Studies have suggested SSRIs may be beneficial in decreasing the frequency of binge eating and purging. Thus, the addition of an SSRI might be considered for patients who are not responding to psychotherapy and for patients with major depression or another comorbid disorder [42]. Indications for hospitalisation are the previously described for AN.

# 14.6.7 Prognosis

Several studies do indicate that a younger age at presentation, shorter duration of illness, less frequency of symptoms, absence of laxative use, close social relationships and a good therapeutic response with in the first month of treatment appear to be positive prognostic factors. Negative prognostic factors include continuous over emphasis on body shape and weight, a history of physical maltreatment, disturbed family relationships, poor motivation, self-injurious behaviours and presence of a personality disorder.

The prognosis for bulimia nervosa is more favourable than for AN, with up to 80% of patients achieving remission with treatment. However, the 20% relapse rate represents a significant clinical challenge, and the disorder is associated with an elevated all-cause standardised mortality ratio of 1.6–1.9% [42]. Despite the medical risks involved in BN, mortality is most often related to suicide [52].

### 14.6.8 Conclusion

Like patients with anorexia nervosa, those with bulimia nervosa are over-concerned with their body shape and weight, and their self-esteem is regulated in the extreme by these aspects of their appearance. They feel under intense pressure to diet and avoid weight gain. This is more frequent in female patients.

As Bordo points out, most women affected by eating disorders are pursuing today's boyish body ideal, which seems to be surrounded by an aura of freedom and independence. However, the body shape of most mature women does not fit the ideal, and therefore they must either spend hours each day dieting and exercising or simply give up trying to attain it. In opposition to this, the bodies of mature women tend to have more body fat than the bodies of younger boys and are rounder and fuller. In turn, this "womanish fat" seems to symbolise women's supposedly voracious appetites and also, for many women, the domesticity they associate with their mothers [36].

Thus, for many women, this appears to be a fight with their own bodies. This is not the pathological body. Instead, the average adult female body that is complexly and ambiguously symbolised is the problem for many women and not an internally distorted perception of their own body or cognitive malfunctions in the processing of information.

There is an embodied perception of the world. This is lived from a situated perspective that is both individual (the person's relation to the world and their experience of life events) and sociohistorical. Behind this lies a culture that is driving more, and younger, girls and women into the regimes of rigorous dieting and exercise, largely by encouraging the fear of weight gain. This is normalising images and ideologies on femininities and notions of female beauty (body image in men is muscular, fit and youthful; masculine beauty as the Grecian model or the David of Michelangelo). This will determine in some way how actual women are much more affected by these pathologies. People live their bodies with the world, especially the social world. From this viewpoint, culture is seen as lived through the body.

# 14.7 Binge Eating Disorder (BED)

#### 14.7.1 Introduction

BED was first formally described in 1959 by Albert Stunkard as a form of abnormal eating among obese patients [54]. The delimitation of BED as a nosological

condition is very recent: it arose as the result of a multicentric study published in 1992 by Spitzer [55]. This established the diagnostic criteria met by a group of individuals who presented recurring binge eating problems but without compensatory behaviours characteristic of bulimia nervosa, such as repeated vomiting or laxative abuse. It was observed in this study that this disorder could be diagnosed with a high index of reliability and that it was very frequent in hospital slimming programmes, affecting 30% of obese patients. In 2013, BED was added as a standalone psychiatric disorder in DSM-5 [40].

## 14.7.2 Epidemiology

BED is the most common eating disorder. The lifetime prevalence rate of BED is estimated in 1.4%. BED continues to be an underrecognised and undertreated condition [41, 56]. BED usually makes its appearance in late adolescence or young adulthood and most often affects women who have subjected themselves to strict diets to lose weight and have suffered relapses. However, the ratio of female to male is more balance for BED than for the rest of ED, about 6:4. It has been hypothesised a correlation between oestradiol and progesterone levels and dysfunctional eating symptoms, being these higher during the luteal phase of the menstrual cycle [57]. Men and women did not differ significantly on developmental variables or on measures of current ED features, like binge eating behaviours or weight or shape concerns. However, higher body dissatisfaction, drive for thinness, dietary restraint and emotional eating were significantly more prevalent among women [58].

Environmental factors are essential in virtually all the patients in which obesity develops. The sociocultural conditions of the population, the "consumer culture" and the "McDonaldisation" of society, together with food technology, subject the public to a pressure that explains the increase of the prevalence of obesity [59], no matter how much the thin aesthetic, of the light body, is imposed. This causes in large sectors of the population, especially in females, a dissatisfaction with body image and an increase in the prevalence of eating behaviour disorders in the female population.

# 14.7.3 Diagnosis Features

The clinical condition is characterised by recurring food binges, defined as eating in a discrete period of time (about 2 h) and amount of food larger than most people would eat under similar circumstances, and behavioural manifestations of lack of control over them. The binges occur at least once a week during a 3 month or longer period, typically, without the compensatory manoeuvring typical of bulimia nervosa.

The key aspect of the psychiatric aspect of bingeing does not refer to the amount of food ingested but to the individual's lack of control over intake. This is the feeling the individual experiences on not being able to stop eating or control what or how much she or he is going to eat. The manifestations of this lack of control are eating

very quickly, eating so much that an unpleasant feeling of postprandial fullness is felt, the ingesting of a large amount of food even though the individual is not hungry and the feeling of disgust, guilt or depression after the episodes. According to the DSM-5 [40], for a diagnosis of the BED, the binges need to cause a clinically significant malaise, with dissatisfaction during and after the episodes and concern over its effects on weight and body image. The patient may obtain a degree of gratification while she or he is eating, but her or his experience after bingeing is always negative, with feelings of guilt, remorse, rage, etc. After bingeing, the patient experiences a deep unease but in general does not display the compensatory strategies of bulimia nervosa. Body dissatisfaction is a strong predictor of lifetime binge eating disorders. It seems that gender does not interact with body image dissatisfaction on binge eating [60].

Differential diagnosis of BED therefore is made above all with atypical bulimia nervosa. However, the use of compensatory strategies characteristic of bulimia, such as fasting and excessive exercise, is not as frequent. Another difference that exists between the two disorders is the degree of obesity. Indeed, patients with BED frequently present serious obesity (defined as a body mass index equal or greater than 35) and greater weight fluctuations than patients with bulimia nervosa.

Some studies have suggested that "emotional eating" could exist. This would affect a group of obese patients whose bingeing responds to emotional stress [61].

## 14.7.4 Psychological Factors

Females with BED often present nonspecific mixed symptoms of chronic low mood, anxiety, sleep disturbances, poor concentration and anhedonia. It has been also associated with substance use disorders, more frequently among men. There is also a higher rate of personality and panic disorders compared to other obese patients, as well as family dysfunctions with abuse and emotional abandonment although not aggression or sexual abuse [62, 63].

Personality traits may play a major role in the development of this disorder through three possible mechanisms: firstly, they may show a predisposition to excessive eating; secondly, obesity itself, when it begins in early stages of life, may affect personality development; and finally, the two mechanisms mentioned may act in a combination. The attitude to the body, impulsiveness and the relationship with food learned from young ages are key aspects in the genesis of obesity.

Classic literature has associated the passive-dependent personality with obesity, although this has not been demonstrated scientifically. However, it has been reflected in history and literature as in the character of Ignatius Reilly in the novel A Confederacy of Dunces. Specific aspects, like insecurity, hypersensitivity and emotional instability, are more frequent than in the population as a whole; what is not clear is whether it is a prior disposition or a form of adaptation in a subject who finds difficulties in adapting to normality.

On the other hand, comorbidity with personality disorders like borderline personality disorder is frequent. This suggests that a causal relationship exists between both conditions, either with a common origin of a genetic and/or environmental basis or because obesity is secondary to the alteration of the control of impulses that

are so frequent in borderline personality disorder. In Western societies, thinness prevails as part of the present canons of beauty, and obese people are aware of the social rejection and discrimination to which they often receive, as well as suffering the limitations that their weight imposes on them in everyday life. This situation may produce dissatisfaction with their own body and with their body image. Their image becomes a principal source of their concerns, and thinness takes top place in their scale of values, above everything else.

An example of the unease these people may experience is "mirror avoidance", which makes them travel large distances to avoid having to look at themselves in the mirror or in the reflection of a shop window. In fact, this suggests that these individuals present a body image disorder that is similar to what occurs in eating behaviour disorders.

Body image disturbance that is not modified despite weight loss demonstrates to us the need to treat underlying psychological aspects such as body dissatisfaction and dysmorphophobic and alexithymic aspects.

Added to this problem is the anxiety secondary to the undertaking of slimming treatments comprising diets without psychotherapeutic support, which are often associated with this problem, above all in the female population. The anxiety disorders most frequently associated with the severely obese are agoraphobia, simple phobia and post-traumatic stress syndrome, which is much more frequent than in the general population. It has been suggested that women with a background of violence and rape may seek relief from food [64].

Obesity in women is associated with a greater prevalence of depressive symptoms due to a greater perception of social stigma, which is much more intense in females. Corporality and body experience constitute a nuclear part of female identity, as has been explained in previous articles.

## 14.7.5 Medical Complications

BED is prospectively associated with the development of obesity. Among women, it is also associated with early menarche, menstrual dysfunction, delivery of higher-birth-weight babies and duration of the first and second stages of labour. BED is also associated with some endocrine conditions such as type 2 diabetes mellitus, polycystic ovary syndrome and metabolic syndrome. Metabolic syndrome and its consequences have been seeing to be more frequent among males [65].

#### 14.7.6 Treatment

Psychotherapy alone or in combination with self-help tools can be considered the first line of treatment. Cognitive behaviour psychotherapy, interpersonal therapy and dialectical behaviour therapy had been the most studied. In moderate to severe cases, pharmacotherapy can be considered. The only medication that has been approved specifically for adults with BED is lisdexamfetamine dimesylate (LDX) [66]. There is also evidence of the utility of antidepressants and antiepileptics such as sertraline or topiramate [56].

## 14.7.7 Prognosis

Early responses to treatment are important from a prognosis standpoint. Binge abstinence should be pursued at the very beginning of treatment, also because the achievement of this goal per se in some cases leads to significant weight loss. Poor weight loss is shown in literature. In most cases treatment should not target weight loss at first, but weight stabilisation. Weight regain is a critical target for BED patients, who report marked weight fluctuations and spend much time trying to lose weight [56].

## 14.8 Other Specified Feeding or Eating Disorder (OSFED)

Epidemiological studies show that the prevalence of OSFED is about 1.5% [67]. The DSM-5 reconfigured and renamed DSM-4 diagnostic eating disorder not otherwise specified (EDNOS) as other specified feeding or eating disorder (OSFED) and unspecified feeding or eating disorder (UFED). OSFED is a formal diagnostic category including heterogeneous nosological entities, such as atypical anorexia nervosa (atypical AN), purging disorder (PD), subthreshold bulimia nervosa (sub-BN), subthreshold binge eating disorder (sub-BED) and night eating syndrome (NES). A study performed in female patients revealed that besides their symptomatologic heterogeneity, all of them share common eating and general psychopathological symptoms as well as personality traits [68, 69].

# 14.8.1 Atypical Anorexia Nervosa (Atypical AN)

This term describes those patients who have all of the features of AN, such as restricting, over-exercising, bingeing/purging and having a significant fear of being overweight, and like those with AN, lose a large amount of weight, but they are not considered significantly underweight. Patients with AN are often significantly emaciated, which may raise concerns with parents, teachers, etc. Those with atypical AN can be of normal weight, overweight, obese or slightly underweight. However, based on their trajectory of weight loss and restrictive behaviours, they are actually in a state of malnourishment [39, 69]. Atypical AN was also previously used to describe those who did not endorse fear of gaining weight or a distorted body image.

## 14.8.2 Subthreshold Bulimia Nervosa (Sub-BN)

All of the criteria for bulimia nervosa are met, except that the binge eating and inappropriate compensatory behaviours occur, on average, less than once a week and/or for less than 3 months [40, 69].

## 14.8.3 Subthreshold Binge Eating Disorder (Sub-BED)

All of the criteria for binge eating disorder are met, except the binge eating occurs, on average, less than once a week and/or for less than 3 months [40, 69].

## 14.8.4 Purging Disorder (PD)

This diagnosis is applied to those patients who purge but do not binge. This diagnosis is especially important for patients in the adolescent age group, as it is thought that there are more teenage patients who purge and do not binge compared to young adults. Those with PD show higher levels of dietary restraint than controls, perhaps feeling a loss of control when eating even a small amount of food ("subjective binge") leading to compensatory purge behaviours. Purging may also help regulate affect by decreasing negative thoughts after the purge. In comparison to those with BN, individuals with PD report greater postprandial fullness and gastrointestinal distress after meals. Although not included in the DSM-5, possible diagnostic criteria for PD suggested by one author include the following: recurrent purging to influence body weight or shape, purge behaviours at least once per week for at least 3 months, undue influence of body shape and weight and absence of objective binge episodes. The lifetime prevalence of PD is estimated to be at 1.1–5.3% for women; no studies for men are currently reported. The management approach is relatively the same as that reported for BN [52].

# 14.8.5 Night Eating Syndrome (NES)

NES was originally described in 1955 as a pattern of eating among obese individuals who were resistant to weight loss in an obesity treatment programme. NES has been associated with weight gain and obesity. The prevalence of NES has been reported to be 1–1.5% in the general population. The disorder is characterised by circadian delayed food intake that behaviourally manifests as evening hyperphagia (consumption of 25% of total daily food intake after the evening meal) and/or nocturnal ingestion (nocturnal awakening and ingestion of food at least twice a week) [70, 71].

Patients suffer recurrent episodes of night eating, as manifested by eating after awakening from sleep or by excessive food consumption after the evening meal. They have awareness and recall of the eating. Also, NES was found to be linked to poor sleep quality, and poor sleep quality/quantity was positively associated with obesity [72]. There are several factors related with NES such as obesity, gender, medications and presence of psychiatric disorders. Prevalence of depressive disorder, impulse control disorder, and nicotine dependency was higher among patients with NES.

## 14.9 Unspecified Feeding or Eating Disorder (UFED)

UFED applies to presentations in which symptoms are clinically significant but do not meet the full criteria for any of the specified disorders. It differs from the OSFED category in that it does not require specifying why the criteria are not met for a specific disorder, and it also includes presentations in which there is insufficient information to make a more specific diagnosis [68].

## 14.10 Other Feeding and Eating Disorders Included in DSM-5

General population prevalence data on rumination behaviour (RB) and pica behaviour (PB) are limited and inconclusive. A study performed in Switzerland in children between ages 7 and 13 estimated a prevalence of 1.7% with RB only, 3.9% with PB only and 1.1% with RB + PB. They also found that those with RB or PB more commonly have greater feeding disorder symptomatology and discovered that participants had greater levels of fear of weight gain, dissatisfaction with shape/weight and restraint over eating. They also had more frequent binge eating, vomiting and laxative/diuretic use [73, 74].

The most curious question is that feeding disorders presented in childhood are equally presented in male and female patients. However, anorexia nervosa, bulimia nervosa and binge eating disorders are mostly frequent in the female population.

#### 14.10.1 Pica

This is also known as "allotriophagy", which derives from Latin and refers to the magpie, a bird celebrated for its excessive appetite [75]. Pica is an extreme degree of dysorexia, that is, a severe disorder of the criteria of qualitative food selection.

The essential feature of pica in DSM-5 is the eating of one or more nonnutritive, non-food substances on a persistent basis over a period of at least 1 month that is severe enough to warrant clinical attention. Typical substances ingested tend to vary with age and availability and might include paper, soap, cloth, hair, string, wool, soil, chalk, talcum powder, paint, gum, metal, pebbles, charcoal or coal, ash, clay, starch or ice. The term non-food is included because the diagnosis of pica does not apply to ingestion of dietary products that have minimal nutritional content. There is typically no aversion to food in general. The eating of nonnutritive, non-food substances must be developmentally inappropriate and not part of a culturally supported or socially normative practice. A minimum age of 2 years is suggested for a pica diagnosis to exclude developmentally normal mouthing of objects by infants that results in ingestion. The eating of nonnutritive, non-food substances can be an associated feature of other mental health disorders (e.g. intellectual developmental disorder, autism spectrum disorder, schizophrenia). If the eating behaviour occurs exclusively in the context of another mental disorder, a separate diagnosis should be made only if the eating behaviour is sufficiently severe to warrant additional clinical

attention in DSM-5. Pica occurs in both male and females. It can occur in females during pregnancy; however, little is known about the course of pica in the postpartum period.

In some populations, the eating of earth or other seemingly nonnutritive substances is believed to be spiritual, medicinal or of another social value or may be a culturally or socially normative practice. Such behaviour does not warrant a diagnosis of pica. Some individuals may swallow potentially harmful items (e.g. pins, needles, knives) in the context of maladaptive behaviour patterns associated with non-suicidal self-injury in personality disorders.

It has also been reported that there is an increase in the comorbidity of pica with the rest of eating disorders (particularly bulimia nervosa), with obsessive-compulsive disorder, with the obsessive personality and with the dysorexias that characterise pregnancy. With regard to the etiopathogenesis of this disorder, this takes in cultural factors, psychological factors including those deriving from inadequate relationships between the child and her/his parents as well as factors that are characteristic of the family dynamic, this being more frequent in families that are seriously dysfunctional and with a greater prevalence of alcoholism, obesity and substance addiction. Pica during the current pregnancy has been associated with higher TfR concentrations indicative of low iron stores [76, 77].

Pica has been associated with harmful and potentially healthful consequences such as micronutrient deficiencies, particularly iron-deficiency anaemia, heavy metal exposure and intestinal damage, with a frequency of poisoning, intestinal obstructive conditions due to bezoars or foreign bodies (phytobezoars, trichobezoars), perforations or processes of an infectious type. These medical complications derive from malnutrition and the harmful nature of the substances ingested [76].

#### 14.10.2 Rumination Disorder

Rumination (from the Latin *ruminare* (which means "chewing the cud") or **mericism** (a Greek term with same meaning) is a disorder of low prevalence present in the early stage of life (between 3 and 12 months old) [4]. Its presence in adults is very unusual other than in severe cases of mental retardation. It was described by Fabricius ab Aquapendente in 1618 and included by Pinel in the digestive neuroses in his *Nosographie Philosophique*.

Rumination consists of repeated and voluntary regurgitation of food ingested followed by new processing (mastication, salivation, swallowing) or expulsion from the oral cavity with the consequent reduction in intake and weight gain. This phenomenon occurs in those who previously present a correct swallowing function and is therefore secondary. Despite being comparatively unusual, it has an elevated mortality rate, which is approximately 25% of cases, due among other causes to the high risk of malnutrition or secondary complications in the form of food inhalation and the subsequent development of bronchopneumonia. Over and above the psychological factors involved in the origin of this disorder (almost always related to the mother-child relationship or to other learning aspects and psychomotor

development), it is necessary to rule out possible organic causes for the anatomical and physiological aspects of the digestive function which may condition this process. Accordingly, the gastro-oesophageal reflux is usually the most frequent cause of mericism [4].

The essential feature of rumination disorder in DSM-5 is the repeated regurgitation of food that occurs after feeding or eating over a period of at least 1 month. Previously swallowed food that may be partially digested is brought up into the mouth without apparent nausea, involuntary retching or disgust. The food may be rechewed and then ejected from the mouth or reswallowed. Regurgitation in rumination disorder should be frequent, occurring at least several times a week, typically daily. The behaviour is not better explained by an associated gastrointestinal or other medical condition (e.g. gastro-oesophageal reflux, pyloric stenosis) and does not occur exclusively during the course of anorexia nervosa, bulimia nervosa, binge eating disorder or avoidant/restrictive food intake disorder. If the symptoms occur in the context of another mental disorder, they must be sufficiently severe to warrant additional clinical attention and should represent a primary aspect of the individual's presentation requiring intervention.

## 14.10.3 Avoidant/Restrictive Food Intake Disorder (ARFID)

This condition is included in the section on ingestion and eating behaviour disorders in the DSM-5. However, it is not accompanied by the symptomatic group of body image distortion, purging behaviour or fear of getting fat. This diagnosis replaces and extends the DSM-4-TR diagnosis of feeding disorder of infancy or early childhood. Estimated prevalence is between 3% in community samples and 14–23% in clinical samples [78, 79].

The main diagnostic feature of avoidant/restrictive food intake is persistent avoidance or restriction of food intake, without the weight and body image concerns in anorexia nervosa and bulimia nervosa, manifested by clinically significant failure to meet requirements for nutrition or insufficient energy intake through oral intake of food. One of the following key features is present: significant weight loss, significant nutritional deficiency (or related health impact), dependence on enteral feeding or oral nutritional supplements or marked interference with psychosocial functioning. The determination of whether weight loss is significant is a clinical judgement; instead of losing weight, children and adolescents who have not completed growth may not maintain weight or height increases along their developmental trajectory [80].

Determination of significant nutritional deficiency is also based on clinical assessment (assessment of dietary intake, physical examination, laboratory testing), and related impact on physical health can be of a similar severity to that seen in anorexia nervosa (e.g. hypothermia, bradycardia, anaemia). In severe cases, particularly in infants, malnutrition can be life-threatening. Dependence on enteral feeding or oral nutritional supplements means that supplementary feeding is required to sustain adequate intake.

In some individuals, food avoidance or restriction may be based on the sensory characteristics of qualities of food, such as extreme sensitivity to appearance, colour, smell, texture, temperature or taste. Such behaviour has been described as restrictive eating, selective eating, choosy eating, perseverant eating, chronic food refusal and food neophobia and may manifest itself as a refusal to eat particular brands of foods or to tolerate the smell of food being eaten by others. Individuals with heightened sensory sensitivities associated with autism may show similar behaviours. Food avoidance or restriction may also represent a conditioned negative response associated to food intake following or because a previous aversive experience, such as choking, usually involving the gastrointestinal tract or repeated vomiting. The terms functional dysphagia and *globus hystericus* have also been used for such conditions [78].

It is equally common in males as in females in infancy and early childhood. If it is comorbid with autism spectrum disorder, it has a male predominance. Food avoidance or restriction related to sensory sensitivities can occur in some physiological conditions, most notably in pregnancy, but it is not usually extreme and does not meet full criteria for the disorder. Other reasons for restriction or avoidance may include loss of appetite or interest in food [80].

Promising approaches to treatment include modifications to CBT and FBT [78, 81].

# 14.11 New Conditions Related to the Psychopathology of Eating Behaviour and/or Body Image

#### 14.11.1 Orthorexia

Bratman first proposed orthorexia nervosa, literally meaning "proper appetite", in the late 1990s, defining it an obsession with eating healthy food to achieve, for instance, improved health. Although not yet officially recognised as a psychiatric diagnosis, orthorexia is often associated with significant impairment, as what starts as an attempt to attain optimum health through attention to diet may lead to malnourishment, loss of relationships and poor quality of life [82].

Orthorexic individuals are typically concerned by the quality of food in one's diet, spending considerable time scrutinising the source, processing and packaging of foods that are then sold in the marketplace. The fixation on food quality is prompted by a desire to maximise one's own physical health and well-being, rather than religious beliefs or concerns for sustainable agriculture, environmental protection or animal welfare [83]. It is true that restrictive diet anomalies and weight loss may be presented, but these may not be considered as atypical or incomplete cases of anorexia nervosa [84]. Sports and exercise have been examined in relation to orthorexia within research, but their interrelationships remain unclear. The disorder often starts innocently with a desire, for instance, to improve one's diet and/or eating habits or general health [82].

Finally, this disorder may give rise to anaemia or vitamin deficiencies and affect the health of children raised with this type of diet, leading to malnutrition. This has

created raw vegans, who only eat uncooked vegetables. For example, *Rawer* (2012) is a Dutch documentary about 14-year-old Tom and his mother, Francis, who adhere to a strict diet of raw food (dairy, fish, meat and eggs are also off limits). It is discovered that Tom is malnourished and not growing at the rate doctors think he should be, and child welfare steps in. These are some of the controversial issues raised in the film. There are difficult questions that stem from conflict between health-care providers and families in a world where alternative nutritional practices continue to be viewed as oppositional to the logic of Western science. Though the field lacks data on therapeutic outcomes, current best practices suggest that orthorexia can successfully be treated with a combination of cognitive-behavioural therapy, psychoeducation and medication [82].

## 14.11.2 Muscle Dysmorphia

This condition is characterised by excessive concern over seeking bodily perfection through physical exercise. This leads to great dissatisfaction with self-image; exaggerated amounts of exercise; special diets and foods, to a degree where there is dependence; and also the consumption of doping substances [85]. This condition is ill-defined at present and related to obsessiveness, perfectionism and dysmorphophobia. It is more frequent in males.

#### 14.11.3 Drunkorexia

Food restriction achieved through the ingestion of large amounts of alcohol with the aim of reducing food intake. This type of presentation is more frequent in young women. Both disordered eating and alcohol use were significant predictors of drunkorexia among young people. It is associated with weight concern and fear of gaining weight, and thus, restrictors tend to alter both their eating patterns. Drunkorexia may also be driven by the desire to intensify the intoxicating effects of alcohol [86].

#### 14.12 Discussion

Young women present eating disorders more than any other pathology. The effects, complications and comorbidity of these disorders oblige us to assess why they still affect women in similar proportions (10:1) to two centuries ago. We choose to ignore existing biological factors, studied genetic factors with greater concordance between monozygotic twins and the presence of alterations in neuropsychological aspects. Instead, we have focused on the sociocultural aspects that, to a certain extent, shape biology and make these disorders persist over time in a Western world where, due to a lack of other ethical values, youth and thinness are what matters most.

A thinner female image leads these dominant cultures to influence teenagers who internalise these figures as personal values. It is a major achievement to be

aware of this. In a society that emphasises freedom, individual ability and free will and choice, awareness of the complexity and nature of the culture in which we are immersed is an advance with regard to those underlying aspects that condition our behaviour, personal choices and even our professional vocations, following Bourdieu's habitus model. One only achieves success by playing to the cultural norms. It is alienating that a woman feels "nothing" in this postmodern world unless she is slim, thin, unwrinkled, blemish-free and fat-free (apart from her breasts), a literally smaller body in the physical sense. We should remember that the ideal male figure has remained the same since the ancient Greeks and an athletic build has been the male beauty ideal throughout history. The postmodern discourse is disturbing, with fixed concepts such as "youth" or "old age" and their corporal expression becoming unstable, fluid, fragmented and undetermined. They are dominated therefore by more sophisticated technologies that make us believe, for example, that any woman can become a mother after menopause. "You only need an egg donor". The same happens with the gender paradigm. These discourses are altering the conception and experience of our bodies, encouraging us to imagine possibilities and close our eyes to limitations and consequences. Anorexia nervosa and bulimia nervosa-binge eating have reached epidemic proportions in the twentieth century. The prison of the body in which these patients live it had become a clinical reality. New ways of addressing this problem are required. More research is needed to determine the role of gender in the construction of these symptoms. A failure to include the gender paradigm in clinical construction will make it impossible for us to practise good science.

#### References

- Alvarez JM, Esteban R, Sauvagnat F. Fundamentos de psicopatología psicoanalítica. Madrid: Síntesis S.S.; 2004.
- 2. Zutt J. Psiquiatría Antropológica. Madrid: Gredos; 1974.
- 3. Alonso Fernandez F. Compendio de psiquiatría. 2ª. Madrid: Oteo; 1982.
- 4. Eguiluz JI, Segarra R. Introducción a la Psicopatología. 2ª. Madrid: IM&C; 2001.
- 5. Harrus-Révidi G. Psicoanálisis de la gula. Gijón: Trea; 2004.
- 6. James R. A medical dictionary. Londres: Osborne; 1743.
- 7. Rozin P. Social and moral aspects of food and eating. Hillsdale, NJ: In I. Rock; 1990.
- Fallon A. Culture in the mirror: socio-cultural determinants of body image. New York: T. F. Cash y T. Pruzinsky; 1990.
- Baas MA, Wakwfield LM, Kolasa KM. Community nutrition and individual food behavior. <u>Minneapolis</u>: Burgess; 1979.
- 10. Contreras J. Antropología de la alimentación. Madrid: Eudema; 1993.
- Toro J. El cuerpo como delito. Anorexia, bulimia, cultura y sociedad. Ariel Ciencia: Barcelona;
   1996
- 12. Carson IA. Ritchie. Comida y Civilización. Madrid: Alianza; 1986.
- 13. Ford C, Beach R. Patterns of sexual behaviour. New Haven: Harper and Brothers; 1955.
- 14. Noordenbos G. Door dik en bun. P. Allagaert and A. Cailleau: Gante; 1991.
- Stunkard AJ. A history of binge eating. Londres: Guilford Press; 1993. (Binge eating: nature, assessment and treatment).
- Von Boehn M. La moda: historia del traje en Europa desde los orígenes del Cristianismo hasta nuestros días. Barcelona: Salvat; 1944.

17. Gordon RA. Anorexia and bulimia: anatomy of a social epidemic. Oxford: Blackwell; 1990.

- 18. Bell RM. Holy anorexia. Chicago: University of Chicago Press; 1985.
- 19. Elias N. The court society. Oxford: Basil Blackwell; 1983.
- 20. Auster P. El arte del hambre. Barcelona: Edhasa; 1992.
- Gianninni AJ. In: Gianninni AJ, Slaby AE, editors. A history of bulimia. New York: Springer; 1993.
- 22. Morton R. Phthisiolgia, or, a treatise of consumptions. Londres: Smith & Walford; 1694.
- 23. Pinel PH. Traité Médico-Philosophique sur l'Alienation mental. 2a ed. Paris: Brosson; 1809.
- 24. Gull WW. Anorexia nervosa. Trans Clin Soc Lond. 1874;7:22-8.
- 25. Gull WW. Anorexia nervosa. Lancet. 1888;I:516-7.
- 26. Lasègue C. De lá anorexia hysterique. Arch Générales Médecine. 1873;1:384-403.
- 27. Brumberg JJ. Fasting girls. The emergence of anorexia nerviosa as a modern disease. Cambridge: Harvard University Press; 1988.
- 28. Wolf V. Una habitación propia. Barcelona: Seix-Barral; 2001.
- Brownell KD. History of obesity. In: Brownell KD, Fairburn CG, editors. Eating disorders and obesity. New York: The Guilford Press; 1995.
- 30. Henry J. Culture against Man. New York: Alfred A. Knopf; 1963.
- Bordo S. Anorexia nervosa: psychopathology as the crystallization of culture. Unbearable weight: feminism, western culture, and the body. Berkeley: University of California Press; 1993.
- 32. Binswanger L. The case of Ellen west. Existence. New York: Simon and Schuster; 1958.
- 33. Garfinkel, P, Gardner, D. Handbook of treatment for eating disorders. 2<sup>a</sup> ed. New York: Guilford Press; 1997.
- 34. Bray GA. Obesity: historical development of scientific and cultural ideas. Int J Obes. 1990;14:909–26.
- Habermas T. Heisshunger: historische bedingungen der bulimia nervosa. Frankfurt: Fischer; 1990.
- Bordo, S. In: Diamond I, Quinby L, editors. Anorexia nervosa: psychopathology as the crystallization of culture. Boston: North East University Press; 1988 (Feminism and Foucault. Reflections on resistance).
- 37. Bordo S. Eating disorders: the feminist challenge to the concept of pathology. Dordrecht: Kluwer Academic Publishers; 1992.. (Leder, D. The Body in medical thought and practice).
- 38. Bordo S. Unbearable weight: feminism, western culture and the body. En Berkeley: University California Press: 1992.
- 39. Moskowitz L, Weiselberg E. Anorexia nervosa/atypical anorexia nervosa. Curr Probl Pediatr Adolesc Health Care abril de. 2017;47(4):70–84.
- 40. Diagnostic and Statistical Manual of Mental Disorders (DSM-5®). 5a. American Psychiatric Association; 2013.
- 41. Udo T, Grilo CM. Prevalence and correlates of DSM-5-Defined Eating Disorders in a Nationally representative sample of U.S. adults. Biol Psychiatry. 2018;84(5):345–54.
- 42. Harrington BC, Jimerson M, Haxton C, Jimerson DC. Initial evaluation, diagnosis, and treatment of anorexia nervosa and bulimia nervosa. Am Fam Physician. 2015;91(1):46–52.
- 43. Lindvall Dahlgren C, Wisting L, Rø Ø. Feeding and eating disorders in the DSM-5 era: a systematic review of prevalence rates in non-clinical male and female samples. J Eat Disord [Internet]. 2017 [citado 20 de septiembre de 2018];5. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5745658/.
- 44. Ernst V, Bürger A, Hammerle F. Prevalence and severity of eating disorders: a comparison of DSM-IV and DSM-5 among German adolescents. Int J Eat Disord. 2017;50(11):1255–63.
- 45. Pichot P, López-Ibor Aliño JJ. DSM-IV: manual diagnóstico y estadístico de los trastornos mentales. Barcelona: Masson; 1998.
- 46. Marzola E, Kaye WH. In: Bier DM, Mann J, Alpers DH, Vorster HHE, Gibney MJ, editors. Anorexia nervosa. World review of nutrition and dietetics [Internet]. Basel: S. KARGER AG; 2014 [citado 20 de septiembre de 2018]. p. 169–73. https://www.karger.com/Article/FullText/362320.

- 47. Ulfvebrand S, Birgegård A, Norring C, Högdahl L, von Hausswolff-Juhlin Y. Psychiatric comorbidity in women and men with eating disorders results from a large clinical database. Psychiatry Res. 2015;230(2):294–9.
- 48. Pugh M, Waller G. Understanding the "anorexic voice" in anorexia nervosa. Clin Psychol Psychother. 2017;24(3):670–6.
- 49. Brown C, Mehler PS. Medical complications of anorexia nervosa and their treatments: an update on some critical aspects. Eat Weight Disord EWD. 2015;20(4):419–25.
- 50. Gravina G, Milano W, Nebbiai G, Piccione C, Capasso A. Medical complications in anorexia and bulimia nervosa. Endocr Metab Immune Disord Drug Targets. 2018;18(5):477–88.
- 51. Mohler-Kuo M, Schnyder U, Dermota P, Wei W, Milos G. The prevalence, correlates, and help-seeking of eating disorders in Switzerland. Psychol Med. 2016;46(13):2749–58.
- 52. Castillo M, Weiselberg E. Bulimia nervosa/purging disorder. Curr Probl Pediatr Adolesc Health Care. 2017;47(4):85–94.
- 53. Grenon R, Carlucci S, Brugnera A, Schwartze D, Hammond N, Ivanova I, et al. Psychotherapy for eating disorders: a meta-analysis of direct comparisons. Psychother Res J Soc Psychother Res. 2018:1–13.
- 54. Stunkard AJ. Eating patterns and obesity. Psychiatr Q. 1959;33(2):284–95.
- 55. Spitzer RL, Devlin M, Walsh BT, Hasin D, Wing R, Marcus M, et al. Binge eating disorder: a multisite field trial of the diagnostic criteria. Int J Eat Disord. 1992;11(3):191–203.
- Amianto F, Ottone L, Abbate Daga G, Fassino S. Binge-eating disorder diagnosis and treatment: a recap in front of DSM-5. BMC Psychiatry. 2015;15:70.
- Culbert KM, Racine SE, Klump KL. The influence of gender and puberty on the heritability of disordered eating symptoms. Curr Top Behav Neurosci. 2011;6:177–85.
- Shingleton R, Thompson-Brenner H, Thompson DR, Pratt EM, Franko DL. Gender differences in clinical trials of binge eating disorder: an analysis of aggregated data. J Consult Clin Psychol. 2015;83(2):382–6.
- 59. Patel R. Obesos y Famélicos. Barcelona: Los libros del lince; 2008.
- Blostein F, Assari S, Caldwell CH. Gender and ethnic differences in the association between body image dissatisfaction and binge eating disorder among blacks. J Racial Ethn Health Disparities. 2017;4(4):529–38.
- Telch CF, Agras WS. Obesity, binge eating and psychopathology: are they related? Int J Eat Disord. 1994;15(1):53–61.
- 62. Yanovski SZ, Nelson JE, Dubbert BK, Spitzer RL. Association of binge eating disorder and psychiatric comorbidity in obese subjects. Am J Psychiatry. 1993;150(10):1472–9.
- Moyer DM, DiPietro L, Berkowitz RI, Stunkard AJ. Childhood sexual abuse and precursors of binge eating in an adolescent female population. Int J Eat Disord. 1997;21(1):23–30.
- 64. Black DW, Goldstein RB, Mason EE. Prevalence of mental disorder in 88 morbidly obese bariatric clinic patients. Am J Psychiatry. 1992;149(2):227–34.
- 65. Kornstein SG, Clayton AH. Women's mental health, an issue of psychiatric clinics of North America, E-Book. Elsevier Health Sciences; 2017. 165 p, 40, i.
- 66. McElroy SL, Hudson J, Ferreira-Cornwell MC, Radewonuk J, Whitaker T, Gasior M. Lisdexamfetamine Dimesylate for adults with moderate to severe binge eating disorder: results of two pivotal phase 3 randomized controlled trials. Neuropsychopharmacology. 2016;41(5):1251–60.
- 67. Mangweth-Matzek B, Hoek HW. Epidemiology and treatment of eating disorders in men and women of middle and older age. Curr Opin Psychiatry. 2017;30(6):446–51.
- Mustelin L, Lehtokari V-L, Keski-Rahkonen A. Other specified and unspecified feeding or eating disorders among women in the community. Int J Eat Disord. 2016;49(11):1010–7.
- 69. Riesco N, Agüera Z, Granero R, Jiménez-Murcia S, Menchón JM, Fernández-Aranda F. Other Specified Feeding or Eating Disorders (OSFED): clinical heterogeneity and cognitivebehavioral therapy outcome. Eur Psychiatry J Assoc Eur Psychiatr. 2018;54:109–16.
- Saraçlı Ö, Atasoy N, Akdemir A, Güriz O, Konuk N, Sevinçer GM, et al. The prevalence and clinical features of the night eating syndrome in psychiatric out-patient population. Compr Psychiatry. 2015;57:79–84.

71. Striegel-Moore RH, Dohm F-A, Hook JM, Schreiber GB, Crawford PB, Daniels SR. Night eating syndrome in young adult women: prevalence and correlates. Int J Eat Disord. 2005;37(3):200–6.

- 72. Yahia N, Brown C, Potter S, Szymanski H, Smith K, Pringle L, et al. Night eating syndrome and its association with weight status, physical activity, eating habits, smoking status, and sleep patterns among college students. Eat Weight Disord EWD. 2017;22(3):421–33.
- 73. Murray HB, Thomas JJ, Hinz A, Munsch S, Hilbert A. Prevalence in primary school youth of pica and rumination behavior: the understudied feeding disorders. Int J Eat Disord. 2018;51(8):994–8.
- 74. Zanetti T, Strumia R. Epidemiology of eating disorders. Berlin: Springer; 2013.
- Chatoor I, Lucarelli L. Feeding and eating disorders of infancy and early childhood [Internet].
   Two. WoltersKluwer; 2017 [citado 21 de septiembre de 2018]. https://iris.unica.it/handle/11584/110945#.W6UjALjta00.
- Roy A, Fuentes-Afflick E, Fernald LCH, Young SL. Pica is prevalent and strongly associated with iron deficiency among Hispanic pregnant women living in the United States. Appetite. 2018;120:163–70.
- 77. Moore DF, Sears DA. Pica, iron deficiency, and the medical history. Am J Med. 1994;97(4):390–3.
- 78. Mammel KA, Ornstein RM. Avoidant/restrictive food intake disorder: a new eating disorder diagnosis in the diagnostic and statistical manual 5. Curr Opin Pediatr. 2017;29(4):407–13.
- 79. Fitzgerald M, Frankum B. Food avoidance and restriction in adults: a cross-sectional pilot study comparing patients from an immunology clinic to a general practice. J Eat Disord. 2017;5:30.
- Nicely TA, Lane-Loney S, Masciulli E, Hollenbeak CS, Ornstein RM. Prevalence and characteristics of avoidant/restrictive food intake disorder in a cohort of young patients in day treatment for eating disorders. J Eat Disord [Internet]. 2014 [citado 21 de septiembre de 2018];2. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4145233/.
- 81. Pitt PD, Middleman AB. A focus on behavior management of Avoidant/Restrictive Food Intake Disorder (ARFID): a case series. Clin Pediatr (Phila). 2018;57(4):478–80.
- 82. Håman L, Barker-Ruchti N, Patriksson G, Lindgren E-C. Orthorexia nervosa: an integrative literature review of a lifestyle syndrome. Int J Qual Stud Health Well-Being. 2015;10:26799.
- 83. Koven NS, Abry AW. The clinical basis of orthorexia nervosa: emerging perspectives. Neuropsychiatr Dis Treat. 2015;11:385–94.
- 84. Grupo de trabajo para la actualización de GPC, España, Ministerio de Ciencia e Innovación, España, Ministerio de Sanidad y Política Social. Actualización de guías de práctica clínica en el Sistema Nacional de Salud: manual metodológico. Madrid: Ministerio de Ciencia e Innovación: Ministerio de Sanidad y Política Social; 2009.
- 85. Morgan JF. From Charles Atlas to Adonis complex—fat is more than a feminist issue. Lancet Lond Engl. 2000;356(9239):1372–3.
- 86. Pompili S, Laghi F. Drunkorexia: disordered eating behaviors and risky alcohol consumption among adolescents. J Health Psychol. 2018;1359105318791229.



# **Desire and Submission**

15

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#### **Abstract**

Dominant-submissive relationships, most notably among which is the sadomasochistic relationship, are a mystery, producing many unknowns. We could focus our attention on masochistic pathology in its strictest sense, as defined in contemporary psychiatric classifications (DSM-5, ICD-10, etc.). Nevertheless, there are other scenarios in which people and couples engage in sadomasochistic behaviour without negative functional repercussions or discomfort for the participants. Finally, we could consider the masochistic elements that appear, to a greater or lesser extent, in a wide variety of interpersonal relationships. The focus on this field is usually on the sexual component of the bond, but the masochistic elements obviously influence the relationship globally, going far beyond the sexual encounter. In this chapter we are going to focus on this last aspect: the dominant-submissive bonds within interpersonal relationships and, especially, in affective ones. Power, identity, gender, society, libido, and aggression all intertwine their paths to produce a tangle of influences, somewhat difficult to explore. Submission and desire are not antagonistic concepts but rather closely related.

#### 15.1 Introduction

In "Hancock" a blockbuster movie [1], the actor Will Smith plays an immortal flying superhero, jaded with his powers and the emptiness of his life. He happens to

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meet a woman, a superhero like himself, and towards whom he is irresistibly attracted to. What the character does not know is that the closeness with his partner will turn them both into mere mortals, in other words, ageing and eventually dying. The story ends by revealing that the couple has been engaging together and abandoning each other for 3000 years, feeling attracted to each other and, upon meeting, becoming weaker and suffering from illness. To survive, each of them must renounce to the other, and they end up understanding that they are destined to live apart, in a perpetual yearning.

In his beautiful novel *Belle du Seigneur*, Albert Cohen [2] shows us its main characters, two lovers who courageously strive to keep the fire of their passion alive. They resort to a childish yet effective tactic: every night, after making love, they go back to their own bedroom. That way, neither of them will see the other with their tired morning face, unshaven and with their hair uncombed. When they meet again for breakfast, they will both look radiant, having lovingly got ready for each other. Each of them will be perfect once more and will not be worn by the passing of time. Each encounter is a new beginning. With this calculated and somewhat crude game, the lovers protect their relationship from the inexorable, and destructive, passage of time. Love, passion, and desire should all be protected as they are only retained, thanks to a mutual idealisation that is very difficult to sustain.

Centuries ago, Plato [3] proposed that we all lack a "half" of us, a part we once lost and deeply miss. We can only be complete next to our beloved; only then is it possible to satisfy this eternal longing for wholeness and leave behind the absence that accompanies us from birth. Both mere mortals and superheroes experience the same need for connection, with the mother figure in our childhood and the person we love in adulthood, and to a certain extent, we all also run the risk of closeness, possibly diluting ourselves within the other and finally disappearing. This perpetual war between need and fear gives the couple their complex dynamic, both joyful and joyless at the same time. There are countless tales from all cultures that tell us about the impossibility of bonding and, at the same time, the need to achieve it. Since ancient times, different human societies have known that the act of surrendering to another, in merging with our partner, incorporates a risk of annihilation. "Neither with you nor without you" says the poet and we all immediately understand.

So for some people, there is always a backdrop of hatred or rejection in the lover towards their beloved, towards that person we need so much, on whom we depend and who has so much power over us. A certain brutality accompanies love and generates this emotional passion that, when faced with betrayal, can convert true love into unreserved hatred. Alexandre Lacroix, a French journalist [4], presents a fine example. He describes how a virtuoso saxophonist can lengthen a note considerably by breathing in through the nose while blowing out through the mouth. In a similar fashion, the lover can blow out a warm air of tenderness, fed off a cool current of hate.

Sadomasochism is an essential part of normal sexual functioning and love relations and of the very nature of sexual excitement and represents a very early capacity to link aggression with the libidinal elements of sexual excitement [5]. Sadomasochistic elements can be found not only along the entire spectrum from

normality to severe psychopathology but as an essential component of all other perverse elements of sexuality.

In this truly emotional fight in which the couple engage, the act of loving is clearly not as imperative or immediate as the need to be loved, a need, in which we cast ourselves at the feet of the other, in a true dependency that can make us feel pathetic, even wretched. Contemporary ideals of individualism and self-sufficiency all collapse in the face of declaring our need for the other. This is what can make the loss so painful and the betrayal so appalling.

We are advised to love others, but we cannot give what we have not received. Consequently, the couple often—if not always—stages a scenario in which all the needs of the individual are represented, including the need to receive love, in many cases the only thing that the couple wants to obtain, but without giving what they do not possess in return.

Social networks raise many questions. It seems that they might be contemporary expressions of the eternal need, which we all possess, to be loved. We could hypothesise that these networks are attempts to solve the dual problem of bonding, using the means that technology puts at our disposal. The networks represent a low-risk approach where it is possible to link up without too much personal commitment, therefore, with less risk of exposing our need and consequently a reduced likelihood of pain.

Celia Falicov, an expert in couples and their possibilities of bonding, warns us: "those very long-lasting marriages occur in couples who marry several times" [6]. People have been changing over the years, and the beloved is no longer the person with whom we bonded in times passed. It becomes necessary to reapproach intimacy with another who is not the same, rediscover each other, and eventually recommit to continue together. Can we re-bond again? Can we accept dependency and risk surrendering ourselves to that person who is no longer the same and that person with us?

#### 15.2 Erotic Encounter and Pain

The erotic encounter, in the fullest sense, is a way to pursue the absolute, perfection, experience total beauty by surrender and immersion in another loved being.

Love is a real experience for all, or very nearly all of us, a life energy that accompanies us and gives us the strength that our existential journey requires. But there are actually two sides to this love: on the one hand, our need to love, less dangerous as it is much more under our control, and, on the other hand, the need to be loved and which exposes us to dependence on the other and that is accompanied by risk and pain. Accepting our need to be loved involves a certain degree of submission, of surrender, and this acceptance places the other in a position of domination over us. A love relationship means wanting to desire and be desired, to dominate and to be dominated. Love without domination and surrender is not possible. Sewing yourself to another means that in the event of a breakup, there will be a tear that is always painful.

Love, and the dependence that it brings us, connects us with aspects normally denied to our being. In our world we give absolute priority to personal independence, to the ability to decide for ourselves in the daily exercise of freedom. Nonetheless, we obviously also have a child part, if you will, that yearns for the protection and care of another. We submit to the guardianship of someone who cares for us and who guides us. Consequently, love allows us to connect peacefully with that part of our being and lets us fall gladly into the arms of a special someone. With him or her, we abandon our caution and fear. As to be expected, poets describe human feelings more accurately, in this subject too: "If you're lost you can look and you will find me, time after time. If you fall I will catch you, I will be waiting, time after time" in Cindy Lauper song *Time after Time* [7], the irrational and unquestioning loyalty that shelters us from this, so very often, hostile world.

Violence within the couple is a highly topical issue. Examination of these, now far too frequent, cases, in which the woman suffers abuse, leads some to suggest the possibility and even the convenience of relationships in which neither of the couple wields power over the other. It is considered that this is possible, that it is convenient, and that it is necessary. Our thoughts on this is that love relationships, understood as those in which love and desire play some role, are relationships in which dependence and longing arise, which inevitably gives power to one over the other. Sexual excitement, in fact, includes an element of surrender, of accepting a state of enslavement to the other as well as being master of the other's fate [5]. Each member of the couple has to decide how far to venture into the relationship and how far to tolerate the dependence and the need for love from the other.

One of the problems with current examinations of conjugal violence is that they tend to focus on the sexual part of the relationship, occupying a central, albeit fractional, part of the whole. It would seem that violence only arises around sex and it only takes a firm no from her to prevent this aggression from occurring. This is a reasonable view, nonetheless, one that eludes a global vision of this bond, which obviously goes far beyond the sexual encounter itself, unless it is clear that we consider any aspect of the couple's relationship to be sexual. However, this possibility, which may well be acceptable, seems to be overlooked by most authors.

The substratum of this masochistic attitude in couple relationships, i.e. submission during the encounter and, with it, the acceptance of domination from the other, has a close relationship with our undeniable need to be loved. In early childhood it is something unavoidable for the sake of one's own survival, and later it becomes a very powerful force that protects our bonds and leads us to interpersonal encounters. But where does this force come from? What if we, as adults, do not really need this connection to survive, do we continue to search for it? This poses the question that Fairbairn [8] and later authors consider key: the libido, is it pleasure or object seeking? We almost automatically seek sexual discharge, and this drives us towards encounters, or is that we desperately pursue encounters that will eventually provide us with sexual discharges? Nowadays there is a certain consensus regarding this second possibility: humans automatically and constantly seek out the other, and sex becomes a bond that makes the relationship with some of these people closer, providing not only general psychological gratification but also physical and tangible.

But, if it is not the expectation of this impulsive discharge that basically pushes us towards the other, then what is this basic primal driving force behind this perpetual motion that affects us? Perhaps Martin Buber [9] provides the beginning of the answer, by stating that there has to be a Thou for there to be an I. It is the presence of the other that shapes our own presence. The other not only teaches us to be and points the way for us to develop but also gives us identity. Many authors describe this process. Some speak of the mother figure that engages the child in a complex game of projections and introjections in order to manage their innate aggression, others that she teaches the baby to mentalise, to recognise, and to distinguish their own emotions and those of others. Perhaps Lacan [10] describes the process more beautifully than anyone else with his famous metaphor of the mirror stage, noting that the maternal look shapes the identity of the child, showing them who they are and, above all, who they have to be. This whole complex formation process as a human being does not cease at the end of adolescence; it is basic to survival, as much as food or oxygen. We have to relate in order to be.

Freud spoke of the "family romance" that both accompanies and defines us. We could also use the simile of the theatre play, a never-ending play where we are surrounded by characters whose presence gives us meaning and energy to live. This incessant play, once set in motion during childhood, is acted out perpetually, both in reality and in our mind, and always populated with characters. Our inner world is a place crowded with people from the past, the present, and the future, real, imaginary, desired, ideal people, as long as they are linked to us.

A key aspect of our identity is our ability to retain a constant image of ourselves, feel a continuity throughout time, and have the certainty that we are the same person that we were yesterday or even decades ago. This "extended consciousness" [11] is in fact what allows us to be, what gives us a psychological framework. The key factor of this process is the collection that we keep in our memory of the infinite series of events in which we participated, of the countless encounters in which we have taken part. We can speak of changes, of encounters that determine alterations, of previous states that, with the interaction of another, are transformed over time. Aristotle [12] defined time as a measurement of change. What defines us as humans is that we are temporal beings, we remember a past, we live a present, and, above all, we dream a future, a future whose ultimate finale we know: death.

The three basic principles of quantum field theory [13] are granularity, indeterminacy, and relationality. Granularity can be understood as the fact that all variables we can consider only have predetermined values rather than just any value. But these variables are not really continuous; they change in jumps however small they might be. Indetermination can be understood as the impossibility to predict all the properties of a particle; we have to opt to define one over another. Ultimately, nature and everything that exists is organised on the basis of interactions, exchanges, and events. Rather than examine objects in reality, it is possible to observe how certain elements interact with others. It is not necessary to take a great leap to apply some, or all, of these principles to the human objects that populate the world, the granularity that our individual existence represents, the indeterminacy that our free will generates, forcing us to predict the behaviour of humans

as merely a margin of probabilities, and, finally, how it is simply impossible to view people as isolated beings but rather to observe their interactions, both real in the outer world and those belonging to the inner world of their imagination and their unconscious. Spirit and nature, mind and body, are much closer than some would care to believe.

#### 15.3 Submission and Us

The big question is whether it is possible to desire without dominating or being dominated. Our answer is no. There is a part of the bond that involves asymmetry and submission, which can be joyful but which remains, nonetheless, submission. Why does submission cause so much trouble these days? Why is it wrong for someone to dominate us and decide what happens with our life? Perhaps this current rejection of submission has to do with the difficulty we have in accepting any submission. There is no King, there is no God, there is no Army, there is no Lord. In this (theoretically) egalitarian place, submission terrifies us because we pretend that a world of equals is possible. But it is not, at least not a world in which we control our destiny. Death is now the only certainty that endures. We must accept it, regardless of what we wish. It is the only thing we believe that we have to accept, the only thing that remains of that world in the past where so many things had to be accepted against our will. We now pretend it is possible to bring everything under our own volition, and naturally, a little submission from a partner.

There is no reason to accept that if our orientation is homosexual, then we have to keep our desires secret. We do not have to accept that I cannot have children because my wife's body, or mine, does not allow it. I do not have to accept that I will not have offspring if I do not have a partner or if my partner is of the same sex. I do not accept illness or death. We view pain and the end of life as if they were an inconvenience, something that we cannot yet control; nevertheless, these will also be controlled in the not too distant future.

Over the years, throughout this period of increasing fantasy which we have been living since World War II, we, in the rich world, have been fighting and winning on many fronts, gaining more and more individual autonomy and shedding those things to which we have to submit: the cradle, the family fortune, our place of birth, colour of our skin, our language, our health, etc.

We do not have to submit to these nor to the will of our parents or even to the will of those who govern. To a certain degree, part of the current European nationalist problem is related to this attitude of not accepting the status quo, in any respect, on any issue. If the law states that X is required to achieve something, I do not feel concerned. My desire and I decide that these limitations do not concern me, and, therefore, I do not submit or feel the need to submit. We can assume that a great sense of freedom is to be had from making that supreme decision of not to submit.

However, life demands a pertinent degree of submission. We mainly have to submit to two factors: time and others. Time passes relentlessly and anyone who has lived a little is fully aware of how fleeting it is. We are older, we are weaker, we

become sick, and, most certainly, we die. Most of us definitely live our lives as if we were immortal.

We are social animals and we literally need others to be human. Without bonds there is no intelligence, emotions, language or life worthy of such a name. Whereas others have will, desires, interests, and feelings that may clash or even coincide with ours, that form part of the framework along which our daily life travels. We are obviously unable to achieve everything we want, so our life is a continuous adaptation to the wishes of others, with constant negotiation to develop what partially satisfies our interests and is tolerable to others. To live is to submit.

Religion and force, or, in other words, God and war, were such commonplace, perceptible realities that to speak of complete individual freedom, like today, would have brought condescending smiles to our interlocutors' faces not so many decades ago. We wealthy baby-boomers from the West have not experienced war, and only through works of fiction and what our parents tell us can we appreciate that this perception of reality, which we have today, is not what existed in other times. And we do have to say perception of reality and not reality itself, because the latter remains practically unchanged. God who influenced the lives of our elders no longer has a presence among us rich. We have left him out of the picture. Fortunately, war has not been waged on our lands, and seeing disturbing images on a screen that show pain, suffering, and fear is decidedly not the same as experiencing it firsthand. Our perspective on war is intellectual, rational, not lived, or emotional. When stories become too real and personal, when the writing stirs that veneer of indifference that protects us, we find it difficult to keep reading. We do not like this perception of reality, so, removed from the life we want to live here and now, it scares us.

We Westerners do not realise that we live on an island of freedom, oblivious to the cruel reality that the vast majority of humans experience. Unfortunately most of the world lives oppressed, coerced, hungry, poor, etc. and subjected to ignorance, lack of freedom, fear, the powerful, poverty, disease, illness, and death.

It is logical that, in this context, submission within the couple, it makes no sense and it is not acceptable. But neither do I wish to submit here. I do not submit to God, to illness or death, so why should I submit to my partner? Why can I not establish some rules of coexistence that protect me from all danger? Submission scares us because it involves danger, danger of suffering at the hands of the other to whom we have gifted power over us. Whoever wants us offers joy in exchange for surrender. That is why, deep down, we are not shocked when we hear those stories of men and women who have thrown everything away and abandoned their careers, their normal life, and even their loved ones, in search of that object of desire that completes them. We listen to these stories with a critical stance under which lies an understanding and an even deeper layer of envy towards those who have agreed to submit to the designs of another who now possesses them.

The election of Donald Trump and the Angry White Men movement that apparently supports him reflect a major change in the heart of US society and, to some degree, in Western society [14]. The fact that a supposed phallocrat can access the highest office of a country that has always been at the forefront of feminism is, among other symptoms, a sign of a growing male concern related to

a deep-seated identity malaise [15]. It seems that many men, accustomed to exercising power in a natural, automatic, and unconscious way, without even stopping to think about what they are doing or that other types of social constructions are possible, now face submission to new relationship rules. New society both demands and expects equality in relationships and respect for those who traditionally did not exercise power: women and minorities. In some way these white men, deprived of power, of representation, of the respect they believe they deserve, also refuse to submit. We could say that it is a modern attitude in the sense that, just as homosexuals do not submit to social pressures and fight for true equality, these Angry White Men do not submit to this egalitarian attitude that forces them to respect the dispossessed; all they want is to recover their role and their power. In other words, they defend themselves because they feel attacked, like any other animal on our planet.

## 15.4 Aggression, Desire, and Submission Today

We find it difficult to accept the dark part of our instincts. In the twenty-first century, our opulent Western society struggles between accepting an ideal of ourselves and accepting our reality, which is much darker, dirty, primal, and real. Passion continues to be rebellious and resists adapting itself to either traditional conservative morals or morals advocated by sectors that are defined as progressive [15].

Gazalé [14] tells us that the construction of the man's identity is a very complex process, full of violence and coercion. Like the woman for de Beauvoir [16], the man is not born but rather becomes himself or is made a man, the result of a long process of social, family, and personal construction. This masculine identity involves, as anthropologists show us, different stages of submission until finally the boy is considered a true male and welcomed as such into the community. In ancient Greece, the young man had to go through an intimate relationship with a mentor who guided him on the path to manhood and which included sexual relations. The boy would have to assume an exclusively passive-receptive role, and neither personal involvement nor true sexual pleasure was expected of him but rather a certain indifference towards something good for the spirit and social integration, void, however, of true joy, especially for him. The idea that beats beneath this theme is that the boy is only half a man and must undergo a process of feminisation and passivity before joining the group of males. Once adults, sex between men will become unthinkable [17].

Women also have to build on and struggle against the prevailing models in the social group in question. Do we fear women? Do we reject them? The Christian West presents the Virgin Mary as an example and model of femininity. The ubiquitous cult of Mary could lead us to believe that there is true admiration in the West towards women and their virtues, as represented by the Virgin. However, the Virgin is an unattainable, singular model. All other women, in comparison with Mary, are sinners and inferior. By accrediting the incomparable Virgin, we discredit all other women, who will always be flawed in comparison.

We roundly affirm that man has the power. But what power? Obviously not the sexual power that the woman undoubtedly possesses. The man can certainly assault the woman and obtain a semblance of sexual intimacy by force, however, annulled by aggression. It would be like saying that the average man has financial power, because he can always rob a bank and steal money from it. The bank has the financial power, not the bank robber. He only seizes something without the consent of its true owner. And consent is everything, because without the willingness of the other, the sexual encounter becomes a theatrical pantomime that merely stages a partial pleasure. That is why prostitution, a controversial issue for much of contemporary feminism, in a way can be considered as a sexual parody. The client buys the sex from but not the desire of the other, the basic ingredient to building an authentic sexual relationship. The sex trade could be considered as enhanced sexual self-gratification.

Camille Paglia [18] has struck back against the politically correct attitude of much current feminism, which she sees as antisex and antiman and displaying a totally censorious attitude towards free thinking in humans. Paglia respects and supports prostitutes, compiling their historical social importance. Prostitution meets a real need in society. Above all for its men, denying this or explaining it away as merely something related to social learning and beyond psychology or biology is, for the author, a display of ignorance.

Eva Illouz [19] states that it is not possible to comprehend issues of harassment and sexual violence if we do not analyse the great sexual revolution of the 1960s that freed women from male domination but which also put them in a weak position because of a "deregulated sex trade". Illouz tells us that the image of women in the Western world has become "sexy", their nakedness being a sign of their availability, of the impending sex act. Thanks to Hollywood, the woman's body has been marketed as visible merchandise, valued for its ability to titillate men and arouse envy in women. The author also further explores the link between sex and money, particularly apparent in prostitution; however, this can also be found in traditional marriage where the woman obtains social and economic status in exchange for providing her husband with a sex life. This exchange has been seriously affected by the "deregulation" of the sex trade. This term can be understood as the social process that has liberated the sexual encounter from any exchange. Nowadays a sexual relationship with someone who receives nothing in return, except his/her own enjoyment, and free from any commitment is perfectly acceptable. After this change, the only ethic that survives is that of consent: you can do whatever you want as long as the person to whom you do it consents. In some way sexuality has been liberated; nonetheless, the social and economic power of men has remained untouched. It is no coincidence that the masters of the new economy that emerged under the aegis of digital technologies are, each and every one, men: Gates, Zuckerberg, Musk, Page, Jobs, etc. Women who have entered the labour market en masse are still mainly the workers of capitalism. Revoking the sexual power that women possessed in traditional society (I provide you with sex in exchange for status and security) without changing the position of male power in the economic and social sphere has possibly contributed to weakening the female position and not necessarily to

strengthening it. Admittedly women have gained control of their bodies, of procreation, and new forms of sexuality have been legitimised, pleasure has been legitimised, and the ideal of virginity has disappeared.

On the other hand, Illouz invites us to consider how power has a strong impact on sexuality. Given the dilemma between sexuality governed by attachment or seriality, power pushes the subject, man or woman, towards successive and varied encounters. Power seeks submission, successive submission, reaffirming the subject's threatened identity. But we should not forget that power, if it does not fit in with a game, a simulation, or is granted, as in a sadomasochist relationship, can be totally antierotic. Once again we find ourselves facing joyously willful submission as a key to shared sexual pleasure.

Hakim [20] states that a major source of violence against women is what she calls the "male sexual deficit". This refers to the fact observed in multiple sociological studies in different societies that men want more sex than they get. This imbalance means that women can secure sexual encounters far more easily than men. Desire in women, claims Hakim, remains at a level similar to that of men until they are 35 years old; after which there is a significant decline in their interest in sex, which most couples notice. Males are amazed that the woman they married to, with whom they shared their sexual passion, has stopped doing it. By way of an alternative, it is various moral attitudes that determine whether men opt for masturbation, sublimation through other activities or substitute interests, and infidelity or simply paying for a commercial sexual encounter. This vision that the author puts on the table are facts that do not fit well with the prevailing Western vision of an egalitarian and similar sexuality between men and women. Undoubtedly a lot of data for everyday reality (the very disperse consumption of commercial sex, pornography, membership of dating or friendship networks) not to mention numerous sociological studies support Hakim's counterflowing and occasionally politically incorrect arguments.

Today's society faces three possible ways to develop a new sexual ethic [21]: the way of consent that invites individuals to carefully word their desires to avoid any misunderstandings, the way of conflict that encourages women to react aggressively when faced with direct or indirect aggressive actions from men, and finally, the way of vertigo, assuming the inherent problems of seduction without assigning the individuals any specific role. Where are the dynamics of submission-domination placed at these crossroads?

Mainstream feminist thinking tells us that the sexes are the same and that women can go anywhere, say anything, do anything, and dress in any way. Paglia [18] retorts, with a firm no, they cannot; sexually speaking, women will always be in danger. Feminism, promoting naive images of a happy world and far removed from the one in which we live, makes young women blind to life as it really is. The sexes are at war and men seek their identity by cutting the mother's restrictive apron strings. As far as Paglia is concerned, the pending change that will lead women to true personal autonomy is for young girls to assume personal responsibility for their own lives and destiny and stop playing the victim card, in a world that is both dangerous and full of life.

We continue with Paglia [18], who points out how aggression and eroticism are closely related, especially among males. The hunt, pursuit, and capture are biologically programmed into their sexuality. Generation after generation, men have to be educated, refined, and ethically persuaded to move away from their tendency towards anarchy and brutality. Society is not the enemy, as naive feminism affirms. Society is what protects women against rape. Violence contains an erotic or pleasurable element that we find hard to grasp. A special form of violence, rape also contains this element, particularly perceptible in the infectious and savage delirium of gang rape. The rape of women of vanquished foes is historically just another weapon of war. An unknown author [22] reveals, with astounding detail, her experiences in the Germany conquered by the Red Army in 1945. The only defence against gang rape was individual rape, carried out by a conquering soldier, acting as a partner to protect the woman in exchange for exclusive sexual access. The main character submits to this brutal reality that leads her to do whatever is necessary to preserve her life and retells the story dispassionately.

Contrary to the fantasies of Rousseau and his current representatives, nature is aggression and danger. It is society that defends us from the cruelty and death that nature carries by its side. Hobbes [23] tells us how life of primitive man was: "solitary, poor, nasty, brutish, and short". Feminists seek to revoke the power of sex, but it is not possible. Sex is power; identity is power. Nonexploitative relationships in Western culture simply do not exist. Liberalism defines government as a tyrannical father and wants it to behave as a nurturing mother. Society is our fragile fence that protects us against this powerful, dreadful nature. When we interact, we embrace not just a person but their whole family romance, and in each family romance there is hostility and aggression. Adult sex is always a ritual representation of realities faded over time [18], and each orgasm is a domination, a surrender, or a breach.

In all cultures, a woman represents nature. Hence, men maintain an attitude of distrust towards the woman and defend themselves against her through the rules and conventions of society. Art and culture attack the woman, reflecting such distrust in the face of this representative of nature that oppresses and governs us. "Great art is always flanked by its two dark sisters, Blasphemy and pornography" [18]. Many see the construction of masculine identity as a more complex process than that of the woman. She only has to be; she does not have to become. Man has to detach himself from this woman-nature in order to become a male and be recognised as such. And powerful nature deals in species, not individuals. The encounter with the woman poses danger, because each male runs the risk of physical and psychological castration during intercourse. Love and desire spin the spell that appeases this fear and makes sex possible. Within this context of a powerful, dreadful nature that demands total submission to its will, it is the homosexual who stands as one of the great builders of Western identity, representing the struggle against nature and a refusal to participate in the expected reproductive task as a species.

Historically, we have been subjected to force (God, War/Law) and death. Today in the West, God has disappeared and society has largely renounced the use of force. All we are left with is submission to death, somewhat weaker today, thanks to the fantasy fed by each Sunday supplement claiming that one day we will triumph over

disease and demise. But reality is stubborn and ultimately imposes itself. The philosophe Clement Rosset [24] gives an example of the medieval Spanish theologian and missionary Ramón Llull and his stoning by an Islamic mob angered by his apostolic fervour. Finally, we die and we will die. We live in an eternal struggle against what we are subjected to. In love submission is voluntary and pleasurable and, outside of it, involuntary and painful.

From our point of view sadomasochistic sexuality is something that happens between us and, consequently, deserves to be studied with dispassion and objectivity, setting all prejudices aside, prejudices that almost always come from ignorance and fear. Secondly, many enjoy sadomasochistic sex, and it has enormous appeal, as demonstrated, for example, by the worldwide success of the *Shades of Grey* series. Thirdly, things sadomasochistic form part of general sex that "normal" people enjoy. Added to which, sadomasochistic sex does not necessarily represent a pathology as it does not often cause suffering or functional difficulties at any level. Finally, sadism and masochism tell us about ourselves and our passions, i.e., about our life in its full extent.

One of the obligations for those of us who aspire to contemplate reality in its social and personal context is to call things by their name. Where others view in fear, we have to brandish our index finger and point at that which is hidden, sometimes in plain sight of all. Above all, we have to point at which is not wished to be seen that disturbs or frightens us, what others would prefer not to happen. All too often debates, even or especially debates with intellectual or academic pretensions, discuss matters of what should be, abandoning the real that surrounds us and, in doing so, contact with the throbbing life of people and groups.

#### References

- 1. Hancock BP. Columbia Pictures. 2008.
- 2. Cohen A. Her lover [Belle du seigneur]. London: Penguin; 2005.
- 3. Plato. The banquet. Leopold Classic Library. 2015.
- 4. Lacroix A. Sur le double jeu du je t'aime. Philos Mag. 121;2018.
- Kernberg O. Sadomasochism, sexual excitement, and perversion. J Amer Psychoanal Ass. 1991;39:333–62.
- Falicov CJ. Dialogo terapéutico con parejas y familias interculturales. Dialogo terapéutico con parejas y familias interculturales. XIII Jornadas Escuela Española de Psicoterapia. Madrid: 2018.
- 7. Lauper C. Time after time. In: She's so unusual. Portrait Records. 1983.
- 8. Fairbairn WRD. Psychoanalytic studies of the personality. London: Routledge; 1994.
- 9. Buber M. I and Thou. London: Bloomsbury; 2013.
- Lacan J. The Mirror stage as formative of the I function as revealed in psychoanalytic experience. In: Ecrits. New York: Norton; 2006.
- Damasio A. The feeling of what happens: body, emotion and the making of consciousness. London: Vintage; 2000.
- 12. Rovelli C. The order of time. London: Allen Lane; 2018.
- 13. Rovelli C. Reality is not what it seems. The journey to quantum gravity. London: Penguin; 2017.
- 14. Gazalé O. Le mythe de la virilité. Un piège pour les deux sexes. París: Robert Lafont; 2017.

- Gonzalez Torres MA, Fernandez Rivas A. Pornografía y Sociedad. Revista del Centro Psicoanalítico de Madrid N°. 2014:28.
- 16. De Beauvoir S. The second sex. London: Vintage; 2011.
- 17. Nussbaum M, Sihvola J, editors. The sleep of reason. Erotic experience and sexual ethics in ancient Greece and Rome. Chicago: The University of Chicago Press; 2002.
- 18. Paglia C. Free women, free men: sex, gender, feminism. London: Vintage; 2018.
- Illouz E. Les femmes ont été les grands perdantes de la révolution sexuelle. Philos Mag. 2018:116:55-7.
- 20. Hakim C. The male sexual deficit: a social fact of the 21st century. Int Sociol. 30(3):314–35. 2015XXX.
- 21. Legros M. En quête d'un nouvel érotisme. Philos Mag. 2018;116:52-4.
- Anonymous. A woman in Berlin. Eight weeks in the Conquered City: a diary. London: Picador; 2006.
- 23. Hobbes T. Leviathan Penguin Classics; 1982. p. 18.
- 24. Lacroix A. Hommage à Clément Rosset. Philos Mag. 2018;119.



# **Life Instinct and Gender**

16

## Olatz Napal-Fernandez

The irony of human's condition is that the deepest need is to be free of the anxiety of death and annihilation; but it is life itself which awakens it, and so we must shrink from being fully alive. [1]

Every existing thing is born without reason, prolongs itself out of weakness, and dies by chance... The contradiction of our existence as for-itself is that our essence only becomes complete when our existence is no more. [2]

#### **Abstract**

The instinct for survival or self-preservation represents the most relevant tendency of the human being, as the development of other instincts and vital functions depends on it.

Life and death are interdependent; they exist simultaneously and not consecutively, and they exert an enormous influence on experience and behavior.

Our life and hence our experience, behavior, and identity (including gender) are related to experiences of change, pain, risk, symptoms, ambivalence, and loneliness and the experience of "the others," the grief, the anxiety before death, and the perception of the meaning of life.

Based on Pierre Bourdieu's model, through his work *Masculine Domination*, we conduct an analysis of how culture and society interfere/interact in our behavior, therefore in our lifestyle, and hence in our identity (from a gender perspective) to the extent that we unconsciously add incorporations (from that culture/society) and subsequently assume them as "natural," "immovable" aspects that are determined by our sex ("biologically").

However, things are not as simple as that because, if so, we would not feel disagreement with those behaviors/manifestations/ways of feeling that are given to us "naturally," and that is where the human being (regardless of sex/gender)

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makes an effort to "take the reins" of what belongs to him: his life, his body. We will thus approach the subject of suicide from some different theoretical perspectives and models, as well as the subject of self-harm, where we will also specifically address self-mutilations, and conclude by providing our reflection.

#### 16.1 The Instinct for Survival

Instinct is a pattern of inherited behavior, characteristic of the animal species, which varies little from one to another individual. It develops according to a temporal sequence, which is slightly susceptible to be disturbed, and seems to answer a purpose. The instincts constitute biological impulses, inherited and intermittent, which are likely to be activated by physiological or environmental factors.

The instinct for survival or self-preservation represents the most relevant tendency of the human being, as the development of other instincts and vital functions depends on it.

The drive is a dynamic process consisting of a thrust that makes the organism tends to an end. It arises from a state of tension and tends to suppress it. The term drive is a limit concept between what is psychic and what is somatic, as it involves a representative that is sent from the soma to the psyche. Drives are responsible for the psychological motivation of the human behavior, and they act in a constant and non-intermittent manner.

Freud organized the drives in a duality that showed mutual oppositions already: drives of self-preservation (protective of the individual), which were quickly subjected to the reality principle, and sexual drives (imperative of the species), which intended their operation according to the pleasure principle and, only late and laboriously, reproduced their way of adaptation to reality.

In the second stage of his theory, the so-called second topic (1920), Freud includes both the life drive and the death drive (or self-destruction):

- Life drive (Eros): The libido is home to both the former drives of self-preservation and the sexual drive.
- Death drive (Thanatos): Prone to the unbinding; it constantly tries to simplify the complex on a quest to reduce tensions, until it returns the living being to the absolute inorganic stability, ergo death. The death drive primarily operates inside the individual, and, only secondarily, it is directed to the outside as a destructive instinct. Sabina Spielrein originally described the concept of death drive. It is noteworthy that Freud only refers to his predecessor in this concept, Sabina Spielrein, in a footnote of his essay Beyond the Pleasure Principle (1920).

Sabina Spielrein played an especially significant role in the development of Freud's theory on death drive, presenting her work (after obtaining her doctorate in medicine with a case of schizophrenia the previous year) in 1912 with the title *Destruktion alsursadre des werdens* (*Destruction as Cause of Coming into Being*).

The novelty in Sabina Spielrein's theory is that it links death drive with life drive. She holds that not only these two forces are balanced but that they are a condition from each other; both of them are primary. Thus the existence of one of them is inconceivable without the other. And it is remarkable that Sabina Spielrein, before all else, shows how myths, legends, and sacred texts of different cultures interrelate death with birth. There is some logical connection, she says, between the return to the original material and rebirth. She also shows how the same myths and legends reveal a knowledge of the aggressive and destructive element in the erotic, and how self-destruction is within us as an instinct, both because it opens the way to what is new and because it is related to the feeling of pleasure.

In her work, Sabina Spielrein holds: "You feel that the enemy is within (...) Its characteristic ardour compels you, with inflexible urgency, to do what you do not want to do; you feel the end, the transient, before which you vainly may attempt to flee to an uncertain future."

In the twentieth century, other psychoanalysts, such as Karen Horney, denied that there was a death drive or Thanatos but that adverse situations in the society would create the drive against the person itself in every individual.

Some others argue, following Winnicot, that there is only one life drive, with two roots (erotic and aggressive), which should remain integrated [3].

From the most existentialist point of view, death is a fact that always hurts; our attitudes toward it have an influence on our way of living and growing, our hesitations, and our diseases. Life and death are interdependent; they exist simultaneously and not consecutively, and they exert an enormous influence on experience and behavior [4].

Heidegger argued that there are two fundamental ways of being-in-the-world: (1) the state of self-neglect (immersed in the routine, lost from "the others") and (2) the state of care for the self, not marveling at the way of the routine but because it exists (transcendental).

In general, we live in the routine, but there are experiences (to which Jaspers called "limit" [5]) that move us and take us out of that state to take us to the "superior" one, being death one of them, condition that allows us to live the life authentically [4]. Denying death in any way is to deny the basic nature of the human being, which would more and more restrict consciousness and experience. "Though the physicality of death destroys us, the idea of death can save us."

The awareness of change often breaks the certainty of an "organized" life that has up to then been a referent of identity. Change is transformation, metamorphosis, whose process and assimilation are founding of the sense of identity. Changing is experiencing satisfactions and sufferings. The anxiety that appears when we "intuit" the change is linked to the feeling of identity loss. In cases where this occurs, it is intended that nothing be changed. This is to avoid recognizing a discontinuous temporality, the difference between past and future, despite those changes mean success or progress for the individual. This can be experienced as an approach to death. The transformation, as Hegel says, starts as an antithesis. We are ourselves as we become a combatant against our dependency without forgetting that we ourselves are also that dependency we fight against. So that the

transformation is authentic, it has to go through our process of identifying what we reject. Everything that results negative also involves our human condition [6].

Who is not, can not release from any pain. (Amery, J)

Pain is inevitable in the experience of change. There is no change without pain, but only with pain there is no change either. When there is no tolerance for change, whether internal or external, the sense of identity tends to be unstable. Hence the tendency to avoid change may sometimes cause a high level of pathology, leading to the repetition, to the compulsion, in order to preserve, at any cost, the aspects of reality or oneself that don't want to be exposed to transformation. The identity of the individual that rejects change is mortgaged and alienated in the object. This individual is denying that, as Yalom I. says, "we are time."

The awareness of change is the process by which we can recognize our crisis as an emergent of our identity and not as the antithesis of it. That awareness is the awareness of the future too, that is to say, of the reparative dimension of change [6]. But for this we need to go through the experience of risk. Because the risk exists, it is an inevitable feature of life that is not only taken before the unknown and unpredictable but also when we are about to get trapped, or when we are already trapped, in the hands of the known only.

The symptom is crack, malady, or expression of needs. Its presence disorganizes the chronic present. It not only talks about itself, but it is itself. It is an expression of needs, the individual feels placed between two opposing realities: an identity that is already losing and another that is not yet in sight but threatens with its indetermination. Many times, the symptom is the expression that ambivalence assumes through the body.

The ambivalence is the experience in which the subject lives simultaneously with its hope and frustration. It is the possibility to oscillate between the parts of a whole, identifying them as interrelated and complementary. The emphasis, in the ambivalence, falls on the middle, that is to say, at the point of convergence of the extremes. In duality, the emphasis falls on the opposition, not on the convergence. Accepting ambivalence means accepting, inside oneself, two aspects firstly experienced as contradictory rather complementary: "I am the love and the hate," "I am a man and a woman," or better said, "I am masculine and feminine"; "I am life and death." To accept both aspects as equally constituent parts of the personal identity opens up the possibility of a dialogue link, not antagonistic, between both parts, which place the subject in a different perspective to deal with the change from a reality of internal and external knowledge.

To accept the ambivalence means to accept the other, not only the other as a different and separated fellow but to "the other self." It means accepting the proper limits of the human condition. The greater the acceptance of ambivalence is, the greater the authenticity and the greater the wealth before the difficulty of accepting death.

The awareness of one's own death does not appear as a biological fact but as an experience of the limits of the possibilities of development of the self. By understanding the limits of our development, we understand the possibilities of it.

It is true that the duality of gender may seem inevitable at first sight, as it is generally interpreted that sex and the gender role ascribed in birth remain throughout the life of any person. However, it is not necessary that there is continuity in the subjective experience of the gender identity, as this is *dynamic* (i.e., more or less masculine, more or less feminine, more or less androgynous, etc. depending on our references, feelings, contexts, etc.).

Within what we culturally "incorporate" (*Bourdieu's habitus*) as feminine, the woman insists on believing that the symptoms through which she tries to communicate are not directly related with the environment she is involved in. There is fear to pose the problems, the personal dissatisfaction within a social model in which she does "not fit," so that she is trapped in a perspective that is insufficient to understand the own pain, the guidelines of the conventional system that she belongs to, which are in part the guidelines of the person itself.

As Jean Amery holds: "Identity is not given by being a coherent person suffering from contradictions, but a contradictory someone because of his human nature who seeks certain coherence in his contradictions."

From our cultural perspective, loneliness is emptiness, isolation, abandonment, or deterioration. It is, fundamentally, privation.

Loneliness connotes impoverishment. It is equated with the loss of the self. Loneliness involves failure because being alone is to be lost. Being alone is identified as "not to be." The assumed proof that one exists comes when we have someone else next to us. I can only be when someone else next to me confirms my existence with its presence. This happens to the human being regardless of the gender.

In solitude, time consciousness is visceral: "in my solitude, I become aware of my finitude. If I can build my self is because I am going to die." "I am not a once and forever something, I am in permanent evolution. Only what can die, can change."

Spinoza stated that every human being seeks to persist in its own been, and Hegel, claiming that wish is always a wish for recognition, suggests that we can only keep our own self if we commit ourselves to receive and provide recognition from the others. In our own ability to persist, we depend on whatever is outside of us, a wider sociality, and this dependence is the basis of our resistance and our ability to survive (Butler, J.).

The relationship with the other determines the constitution of our "self."

A woman who is alone breaks an established order, both objective and subjective [7]. She transgresses ideological guidelines and traditional values, she has supposedly failed and has been unable to consummate her femininity, as she is exposed to the "elements," and she cannot totally be a complete woman and she is forced "to be a man."

According to Mitzrahi, the dissociation, which leads to the absolute inconsistency of the person with itself, results in and feeds back the practice of rejection to the self. The woman, apparently more often, moves between disassociation and symbiosis in order to not to stay or be left alone. Depression becomes a way of confession and denouncement of sadness in fear behaviors, which are the expression of a deep dependence and the absence of a reflective consciousness. Sadness is

useful to realize and make contact with aspects of one's personality that we try to keep aside.

It is through the body that gender and sexuality are exposed to the others and get involved in social processes that are registered by cultural rules and apprehended in their social meanings (Bordieu's "habitus"). To be a body is to be given to others, despite as a body, I am in depth, "my embodied-self."

As Esteban holds [8], "identity, besides being constructed trough interaction, is embodied: the corporal image and the individual and social body are fundamental in the construction of one's identity and the belonging to different groups. In our society, the person is constituted by an individual entity whose borders lie on the surface of the body." We are given to another: this makes us vulnerable to violence but also to another set of contacts, contacts ranging from the eradication of ourself at one end to the physical support of our lives at the other end.

Therefore, the experience of the loss of someone (the Other) in the mourning provokes shock and confusion. There are feelings of confusion and emptiness, feelings of depersonalization can be described, and there is a tendency to deny that the loss has happened [9]. In this experience, the bonds between the others and us are revealed. These relationships constitute our sense of the self so that, when we lose them, we lose ourself in a fundamental sense: we don't know who we are or what we do. The social relationship that constitutes ourself exposes us [10].

The fear of death is permanent and, of such size, that an important part of the vital energy itself is consumed in the act of denying death. One of the basic desires of the human being is to try to transcend it. According to Freud, the basic human group (the core of social life) is formed around the fear of death: the first humans settled together driven by the fear of separation since they were unaware of whatever stalked them in the dark. We perpetuate the group to perpetuate ourselves.

To give meaning to life by devoting oneself to one cause can take various forms:

#### (a) Altruistic: to find meaning in contributing to the good of others.

Irvin Yalom, in a text of his existential psychotherapy, adds: "Much developmental research has dealt primarily with the male life cycle and has not taken special circumstances in the lives of women sufficiently into consideration. Middle-aged women, for example, who earlier in their lives devoted themselves to marriage and motherhood, seek different meanings to fulfill than their middle-aged male counterparts. Traditionally women have been expected to meet the needs of others before their own, to live vicariously through husbands and children, and to play a nurturing role in society as nurses, volunteers, and purveyors of charity. Altruism has been imposed upon them rather than freely chosen. Thus, at a time when their male counterparts have achieved worldly success and are ready to turn to altruistic considerations, many middle-aged women are, for the first time in their lives, concerned primarily with themselves rather than with others." Those who can (both by intern and extern factors), we dare to say.

## (b) Creativity

"Creativity is a 'natural' process implying pain and ambivalence, as the procreation [11]." Some authors define creativity as the quality of the human being through which something new takes place transcending the existing one, which requires (a) an exercise of association between the outer and the inner world (subjectivity), and to be cognizant of it, (b) an elaboration, and (c) a communication to the outer, the latter two superimposing on each other [12]. We must note that "to fantasize" is not "to create" [13]. The fantasy is a subset of the creative process that occurs in the inner world before manifesting it to the outer one. The creation, as a whole, requires activity, an exposure outside, an "externalization," and "arting out" as Feder refers (1998) [11]. Therefore, the fantasy (staying inside, without getting outside) would be more related to women, to the waiting, and to "not acting out." It is a shelter without reaching the "arting out" (or with higher difficulty than men, at least) as in the creativity, since the product is publicly exposed and is "visible"; it is likely to be damaged [14].

And this is because the public space continues to be mainly masculine. The public art space is mostly occupied by men, as the *Guerrilla Girls* report.

This movement has concerned itself with upsetting fictions like the artistic genius and masterpiece, which sustain a concept of art that presents itself as independent of its historical and social context. Remaining anonymous, behind gorilla masks and adopting the names of iconic dead women artist, they focus on the political dimension of art and denounce the way women are systematically overlooked in contemporary society. Forged in the nineteenth century, this concept continues in force today.

#### (c) Hedonistic solution

The purpose of life is to live with plenitude, to seek the pleasure in the deepest sense of the term. Hedonists believe that pleasure itself is a satisfactory and sufficient explanation of the human behavior. Even the behavior that leads to pain, contempt, or self-sacrifice can be considered as hedonistic, as it is an investment in the future pleasure. The pleasure principle surrenders to the reality principle: temporary discomfort may produce future dividends in the form of differed pleasure.

## (d) Self-actualization

Maslow states that the person has inside a propensity for development and unity of the personality and for a type of inherent pattern that consists of a unique set of characteristics and an automatic impulse to self-expression. We have a hierarchy of inherent motivations. Maslow considers society as an obstacle for self-actualization, because it usually forces the individual to abandon the development of its unique personality, to accept inappropriate roles and paralyzing conventions. In terms of gender, Maslow would refer to Bordieu's concept "objective domination," to which we will refer later.

The latter two (hedonism and self-actualization) differ from the above (altruism and creativity) because they take responsibility for oneself, while the others reflect a "basic impulse" to transcend the interest of the self in order to try to achieve

something external and "superior" to oneself. In the first ones, we could include the concept of fatherhood/motherhood (within the creativity, procreativity), but we won't explain it now, as it will be addressed in another chapter of the book.

The transcendence of the self is the main feature that Viktor Frankl gives to the question of *meaning* [15], stating that "one of the constitutive features of the human being is always pointing and addressing something beyond himself," taking care to differentiate the impulses (sexual or aggressive, for instance) that *push* the person from the inside and the meaning that *pulls* the person from the outside. The difference is similar to that one between *impulse* and *effort*, so that in our most essential being, in those features that make us more humans than animals, we do not feel ourselves driven, but we actively make an effort to achieve a goal. The effort, in contrast to the drive, means that we are facing something outside ourself (i.e., we are transcendent), and moreover, we are free to accept or deny the goal that invokes us. It also means an orientation toward the future: what will be, attracts us and pulls us, instead of letting us be influenced by the past and the present.

I sleep badly again and I have decided to rip everything I wrote and start again. I am sure this is the best. This misery of mine persists and I am absolutely crushed under its burden. If I could ever write again with my former fluency, the spell would be broken. It is the continuous effort, the slow creation of an idea, and then, before my eyes and out of my control, its slow dissolution

(Mansfield K, 1987)

## 16.2 Life with Gender

Social psychology has taken an interest in studying how the process of gender self-construction is made in relation to the dominant roles and stereotypes in the *social environment*. More specifically, we will refer to the sociologist P. Bourdieu and his work *Masculine Domination* [7].

Bourdieu believes that the "domination" processes in a society are produced through a dual mechanism:

- (a) Objectively, referring to social phenomena (through separated places, spaces where some people remain excluded, etc.) that, whether or not are standardized by law, are produced, as it happens with certain professions in which women or men are not represented (in the case of women, in terms of authority, leadership, either by representing a fewer number or by differences in the wage, etc., and in the case of men, in terms of cleaning, etc.)
- (b) Subjectively, as "principle of vision," as a mental structuration that is gradually incorporated and integrated from the objective space, in an "unconscious" manner, from the society, in what the author calls "habitus," and is gradually assumed and perpetuated through the "patterns of perception, appreciation and action." It refers to the incorporation of opposites as public/private, coffee or chat/home, word or expression or policy/feeling, pri-

vacy, psychology, care, reproduction, etc., being the firsts attributed to men and the seconds to women.

The combination of these objective and subjective "dominations" will lead to the "everything appears to be given," to a something that is natural and therefore immovable. And he presents, as a model of it, the concept *vocation* (e.g., women for more human and caring areas, men for the most technical ones). Bourdieu found vocation as one of the great differential "principles of elimination" between men and women: "those eliminated are unconsciously eliminated," women (and also men) lean toward that for which they "were made for," while thinking that they choose it freely. It would be the incorporation ("somatization") of objective structures in the subjective, which will result in a series of categories, thoughts, perceptions, actions, and judgments through which we interpret the reality (he calls it *habitus*). There is an objective difference and it is incorporated. Men and women are unconsciously involved in it.

Within the outer space, which we have previously indicated, that corresponds to men, the woman finds her place through the body, the aesthetic, the cosmetic, the elegance, etc. The specialization attributed (socially constituted) to women to the outside world would be through the aesthetic, the taste, the decoration, etc. The author goes back to Simone de Beauvoir's concept "Trophy Wife," but with a different meaning, as a bearer of the man's social condition (i.e., if she wears jewelry, etc.), the woman more as an object than a person, which also occurs in the labor market, where we find that there is a predominance (although that is changing) of women in professions where the manner, the clothing, the appearance, and hostesses prevail. However, dominant and dominated cannot be "blamed" as this is "accomplice" domination. "Dominants can also be dominated by their domination," which can lead men "to come up to what society has imposed me" and to self-impose sacrifices (up to the ultimate sacrifice of life, as it happens with the absurdity of wars, etc.).

With all this, Bourdieu indicates us that "symbolic violence" is a powerful foundation of the social order.

Despite all of that, there are often spaces left for resistance and change (in both men and women) since, as Maslow says, the person has inside a propensity for the development and unity of the personality, so we sometimes feel that we do not fit or identify ourselves "with what we are supposed to be/do" and takes place a cognitive-emotional struggle in which there is a recognition of the double imposition lived (subjective and objective), what sometimes would give rise to a kind of "revenge" that may take different shades (empowerment, rebellion, self-assertion, crisis, etc. or all of them) [7].

## 16.3 Suicide

## 16.3.1 Epidemiological Data

Suicidology is right. Except that for suicides and potential suicides what it says is empty. For what it comes to for them is the total and unmistakable singularity of their situation, the situation vecue (lived situation) that can never be completely communicated, so that

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therefore every time someone dies by his or her own hand or even just tries to die, a veil falls that no one can lift again, which in the best of cases can only be illuminated sharply enough for the eye to recognize as a fleeting image.

(Améry. J. p. 19)

It has been estimated that suicide is responsible for one million deaths per year, with the rate of 14.5 deaths per 100,000 deceased subjects. Globally, suicide constitutes 1–5% of all deaths [16–18]. Suicidal behavior not only involves the complete suicide, but it ranges from presenting ideas of death or uncommitted suicidal thoughts, to suicide attempts of varying degrees of medical severity, to fatal suicide.

In response to suicidal behavior, we find that literature provides results in terms of gender differences: being that women have higher rates of suicidal ideation and behavior than males, while suicide mortality is typically higher in men [19–22].

In most parts of the world, suicide rates in men are generally higher than in women (WHO 2017) [23]. According to the global suicide report from the WHO, the estimated overall male to female rate ratio was 1.9 in 2012 (male, 15.0 per 100,000; female, 8.0 per 100,000). In high-income countries, however, the male to female ratio of age-standardized suicide rate was 3.5 (male, 19.9 per 100,000; female, 5.7 per 100,000), whereas in low- and middle-income countries, the male to female ratio was 1.57 (male, 13.7 per 100,000; female, 8.7 per 100,000). The male to female suicide rate ratios vary greatly between countries, between 0.5 and 12.5 in 2012 (WHO, 2014) [24].

Several studies pointed out that male to female suicide rate ratios in East Asian countries were lower than in the Western countries, as suicide rates in women in those regions were higher [25]. Lower women's status may be a potential explanation for the high female suicide rates in East Asia. Low women's status is related to violence against women, feminization of poverty and women's shortage of resources to deal with life predicament, and lack of education and economic opportunities [25, 26].

In China more women than men die by committing suicide [27]. In the West, while the ratio of committed suicide is higher in men, the suicidal ideation, as well as the nonlethal suicidal behavior, is more common in women [19, 20, 28].

The United Nations Development Programme (UNDP) compiled a new global index of gender inequality—Gender Inequality Index "GII"—to capture women's disadvantage in the dimensions of empowerment, labor activity, and reproductive health [29]. This index presents a summary of gender disparity in each country and provides a simple measure to examine the associations between global patterns of gender disparity and male to female suicide gender ratios. GII has been criticized to have put too much emphasis on the economic and material dimensions of the disadvantages in women, neglecting the inherited cultural aspects of gender inequality [26, 29]. Some authors say that natality inequality, i.e., son preference, has been added to represent the cultural aspect of gender inequality and represents culturally rooted discrimination against women that women themselves internalize the practice. Using suicide data obtained from WHO and the GII, Cjang and cols. Founded that male to female suicide ratios were higher in countries with more egalitarian gender norms [26].

The rate for suicide attempts is estimated to be 20 times higher than that of suicides [24].

Studies report rates of suicidal ideation among transgender individuals as high as 45% [30]; additionally, estimates of the prevalence of suicide attempts among transgender-identified individuals range from 16 to 42% [31–33].

This striking difference in the suicidal behavior (i.e., the higher prevalence of women in the nonlethal suicidal behavior and the hyper-representation of men in the committed suicide) has been called "the gender paradox of suicidal behavior" [19]. Several authors emphasize that the concept of "gender paradox" refers not only to the biological differences between males and females but also to the social standards and cultural expectations that vary between both genders [34, 35].

We could refer here to what Aurelia Martin [36] calls "gender stratification" referring with that term to the inequality between men and women, which reflects the social hierarchization and the existing male domination in most societies, being that, even within the issue we are trying to deal with, to commit the suicide, the final decision-making and the process from the step to the act, is in the hands of men; while in the "fantasy," "in the inside" in terms of Bourdieu, it would predominate in women, without reaching the final step of "acting out" and therefore staying at the "limits," of both the inner-outer body and the life-death (self-injuries such as superficial cuts, nonlethal drug poisoning, etc.). It would be a kind of "suffocated or muted cry."

Even though women face a variety of social disadvantages, suicide rates are generally lower in women than in men. This could be an indication of women's resilience in responding to stress and crises. Some authors point out that women's suicidal behaviors tend to be labeled pejoratively, although women are in general more adaptive and are survivors. "Failed suicide," "attention-seeking," and "not determined to take one's own life" are usually used to describe women's suicidal behaviors; whereas men's suicidal behaviors are sometimes termed positively ("successful" suicides) even when those behaviors led to self-destruction [26].

However, we observe that this "paradox" is absent in India and China, where women and men have quite similar ratios of suicide [37–39], to the point that the prevalence is higher in the case of young women in rural areas [40, 41].

Several authors refer to the existing chronological relation between suicidal ideation and the suicidal act itself to what they call *suicidal process* considering that it begins with the presentation of ideas of death, hence passing to suicidal ideation and later involving the progression to the suicidality, consisting in the ideation and planning to take control of life and the communication of it, and the increase of all this through recurrent suicide attempts, with a progressive rise in lethality and suicidal intention, which ends in fatal suicide [42–45]. Once a person is introduced into the suicidal process, he becomes more vulnerable to show a future suicidal behavior. Depending on what "stage of the "suicidal process" the person is," the impact of various factors (such as the life stress, socioeconomic conditions or mental illness, etc.) on suicidal behavior may vary [46, 47].

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## 16.3.2 Stages of the Suicidal Process

**Ideation stage**: Initially, the individual considers the possibility of committing suicide as a solution, for instance, for some specific problems on a real or imaginary basis. This is an ideational or imaginative stage in which the desires and fantasies of escaping from an adverse situation, guilt, claiming self-punishment (according to Grinsberg, a persecutory guilt that better appertain to melancholic conditions), hostility, and revenge with the expectation of exercising control over the others beyond death, renascence to a new way of life, ecstasy and meeting with the deceased loved one, or masochistic submission linked to a strong erotic desire and pleasure-seeking, prevail.

Ambivalence stage: The ideational or imaginative stage is followed by another stage in which the struggle between life drive (Eros) and death drive (Thanatos) predominates. In this struggle, the role of the individual self, as an integrator of the other psychic instances of the life of the subject, is essential. If this self is in a situation of weakness, as a result of a personality structure with a more impulsive component, a somatic or mental illness, or toxic effects of consumption, this stage may be brief and culminates in a *short-circuited suicide*, impulsive and poorly planned. On the contrary, if the self accomplishes the assignment in this period, it can be extended in time, and the individual may show signs of suicidal thoughts or intentions to those around him, with the consequent possibility to act preventively.

**Decision-making**: The individual finally decides to commit suicide and, at this time, seems to relax and relieve a huge burden. Externally, this stage is crucial, and indicative signs of it (by bringing the will or legal matters up-to-date, attempts of reconciliation, etc.) may be identified. These indirect ways of communicating an imminent suicide add up to the most direct ones, in which the patient verbalizes or shows signs in advance of his intentions, what is crucial to abort the attempt. As Jean Amery holds, "The bravery of the potential suicide is certainly not arrogance. There always dwells within it an additional trace of shame that, derived from the logic of life, makes the person standing before the leap ask why it is specifically he or she that can't stand it, can't stick it out, when the others still."

The suicidal process can take many years or be extremely short, like just a few minutes, during which the intensity of the suicidal ideation may considerably vary. Generally, the duration of the suicidal process is shorter in men than in women: once the process has begun, men commit suicide much more quickly and successfully than women [42, 47].

We find authors who hold that the "intention," the message, is different between men and women, being women those who show more suicide attempts with a cry of alarm aim, signalization of the suffering they are going through (we do not like to say "attention-seeking" due to the negative connotation that is usually related to this consideration). This suggestion seems to be supported by the evolution of frequently used psychotropics over decades: 40 years ago, "toxic" agents (barbiturates and tricyclic antidepressants) were widely prescribed, whereas nowadays safer products such as low-dose benzodiazepines and selective serotonin reuptake

inhibitors are mostly used [20]. Due to the disappearance of these toxic psychotropics, it was expected that the suicide methods in females would shift from intoxications with rather safe products to the more "fatal" methods. However, no substantial increase in suicide or change in suicide methods has been reported in females, so the lower suicide ratio in females is not just a consequence of the method, but this could – at least in part – also be a reflection of the suicidal intention [20]. However, a growing number of women use more violent methods, especially in the case of young women [35].

Given that, apparently, the "suicidal process" in women is longer, it can lead to the possibility of applying wider therapeutic interventions in this group and thus reduce the rate of committed suicides [48].

Some authors also consider that another difference in the duration of the "suicidal process" would be related to the fact that men show more difficulty to withdraw their decisions, while women are more likely to reconsider the decisions they made. Moreover, most women do not regard asking for help as something negative when they don't feel good, while men have a tendency to think that asking for help is a sign of weakness [34, 49].

## 16.3.3 Stress Factors

## 16.3.3.1 Psychosocial

The literature has referred stress factors such as separation of the couple, troubled relationships, economic problems (finances, unemployment, etc.), immigration, gender identity, or somatic disease. The first two (separation of the couple and troubled relationships) have been considered as the most influential for showing a suicidal behavior, but regardless of sex and gender [48].

With respect to age, suicide in childhood is very uncommon. The literature reflects the emergence of the gender paradox in children at the age of 10-19. Adolescent women at the age of 13 show a sharp increase in suicidal ideation, planning, and attempts [50]. Young men (aged under 25 years) with major depressive disorder (MDD) show a far higher risk of suicide than adult men with MDD [51], considering separation, unemployment, and financial problems as the most influential stress factors in the cohort of young men [48]. There is a higher risk of suicide in separated men than in separated women, regardless of age, so that factors such as antecedents of previous suicide attempts or mental health problems, a lower level of education or financial problems, significantly raise the risk [52]. Furthermore, the ratio of suicide in white men increases after the age of 65, while the opposite occurs in women after the age of 55 [49]. The arguments given for these differences lean toward socio-professional issues and states of life: most men retire from professional life at the age of 65, thus drawing apart from most of the contacts, interpersonal relationships, and friendships they have, especially in their work environment. Moreover, they consider that their "masculine self-esteem" is damaged as they stop being the provider or primary breadwinner of the family. These authors consider that retirement does not have the same effect on women, as along their entire

professional life, they have combined it with the majority of the housework [49, 53], with which they will continue after retirement.

In addition, marriage is considered by several authors as a protective factor against suicide, which implies that widowhood increases the risk of suicide, especially in men [49, 53, 54]. Having a child under the age of 2 years is a greater protective factor against suicide for women than for men [20, 49, 53, 54].

Some authors found that labor market conditions, rather than societal factors such as marriage or fertility rates, affect younger women's suicide rates in Western countries [55]. Those authors found that higher abortation rates correspond with lower suicide rates at the city level, but the mechanisms behind this link are not as clear, since micro studies find little association between unwanted pregnancy termination and mental health.

#### 16.3.3.2 Sexual Abuse

Sexual abuse is more prevalent in women than in men (WHO, 2017) [23].

Given the relation between sexual abuse in childhood and the subsequent suicidal behavior, some authors find a direct association between both of them in men. So, suicide risk becomes 4–15 times higher in men who suffered from sexual abuse in childhood than in men who have not suffered from it [56–59].

In the case of women, this linkage has also been described but appears in the middle of other factors such as depressive symptoms, hopelessness, and the level of the family functioning, in which case the risk of suicide is three times higher than in women who have not undergone such abuses [55, 57, 58].

Some studies are founded on social-cultural coping theory and the model of traumagenic dynamics of sexual abuse suggesting that child sexual abuse (CSA) consequences lead to maladaptive coping mechanisms influenced by sociocultural factors. In adolescent population, the results highlight that boys are significantly more likely to use substances, while girls are more likely to experience depressive symptoms and suicidality [60].

Global estimates published by WHO indicate that about one in three (35%) women worldwide has experienced either physical or sexual intimate partner violence (IPV) or non-partner sexual violence in their lifetime (WHO, 2017) [23]. A meta-analysis provides evidence that experience of IPV increases the odds of incident depressive symptoms and of suicide attempts among women. Few studies included men, but these studies suggested a relationship between IPV and incident depressive symptoms, but there was no clear evidence of association with suicide attempts [61].

## 16.3.3.3 Psychiatric Comorbidity

There is a clear association between suicide and psychopathology. Some authors note that over 80% of suicides were previously diagnosed with a mental illness [62], and a history of hospitalization for mental illness has been found as a significant risk factor for suicide in both men and women [53]. More specifically, it has been demonstrated a strong association between the major depressive disorder or the

borderline personality disorder and the suicidal behavior, being women more diagnosed with such disorders than men [63–66]. Personality disorders, use of substances, and attention deficit hyperactivity disorder are related to an increased risk of suicide in men [18, 49, 54, 62, 67]. In this context, we find how the literature mentions that some personality traits such as impulsiveness, hostility, or aggressiveness (also related to these disorders) are more prevalent in males, raising the emergence of suicidal behaviors and, especially, committed suicides [68, 69]. The majority of patients with schizophrenia who commit suicide are men [70]. In the case of affective conditions, suicide risk increases in men when it is associated with an anxiety disorder and a consequent worsening of the depressive conditions, while in the case of women, the presence of affective conditions is only related to a high suicide risk [62, 71, 72]. Females who use cannabis regularly (more than once per week) reported higher levels of psychological distress and were more likely to report suicidal thoughts and attempts [73].

Some authors have noted that in the presence of psychiatric illness, the differences in the male/female suicide ratio decrease, contemplating whether this may be due to the devastating impact of the psychiatric illness regardless of gender or whether the high male/female suicide ratio in nonclinical populations is due to a high prevalence of undiagnosed psychiatric disorders in men [74]. Furthermore, it has been demonstrated that, in clinical populations, there is a higher "overdiagnosis" of depression in women and/or underdiagnosis of the said clinical in men, which has been denominated "machismo-factor" [51, 75]. This has been associated with the fact that men show more difficulty to seek help from family, friends, or professionals when they don't feel good [49, 71].

Compared with women, men who commit suicide are underrepresented in the psychiatric clinical population and overrepresented in terms of contacts with government services because of substance abuse and antisocial behavior [51, 76].

Gender differences have been considered regarding the "internalization" of some disorders such as anxiety and depression, which could be related to this difference in rank in the male/female suicide rate. The fact that women better assimilate to suffer from these disorders is reflected in a higher rate of suicidal ideation and attempts ("self-aggression"), while in men we would find more phenomena of "externalization," that is to say, antisocial behaviors, violence, use of substances, impulsiveness, etc., resulting in a larger number of lethal suicides.

In fact, some authors refer to the "male depressive syndrome," characterized by an increased externalization of symptoms such as anger, aggressiveness, irritability, and hostility [51, 76, 77].

#### 16.3.3.4 Methods and Statements of Suicide

Several studies report that men show a greater tendency to perform suicide attempts that involve a more immediate lethality than those methods chosen by women, being that men use more violent or faster-acting methods, such as hanging, carbon monoxide poisoning (the poet Anne Sexton used this method to commit suicide), or firearms. Women, on the other hand, tend to use voluntary poisonings that may

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involve a high toxicity but are usually associated with a lower mortality rate and a slower-acting mechanism [19, 20, 71]. It is important to note that the methodology used for suicide not only depends on its accessibility for the future suicidal victim but also on those specific cultural, religious, and social factors of the region where the suicide victim is [78–80]. It is also important to emphasize that the type of method used may influence in the classifications and statements of suicide, depending on the sex of the suicidal victim (and yes, here it refers to gender): on the one hand, many of the suicides committed by women may be under-registered compared with those committed by men, and in the other hand, nonfatal suicidal behaviors in males may also be under-registered [19, 20, 51, 81]. In many (Western) cultures, suicides committed by women are more disapproved than those committed by men, which makes that the suicide records are biased [20], while in some Asian countries like China, there is an opposite cultural belief, showing therefore opposite suicide male/female rates to the Western ones [78–80].

Deaths by poisoning are often unreported as suicides, which makes that many suicides committed by women are not recorded as such, while the most violent methods used by men are rarely reported as accidental deaths. On the other hand, it is considered that men are more aware of the social disapproval of their suicidal behaviors and thoughts, as they might be considered as "unmanly," which may provoke that nonlethal suicidal behaviors are not reported as such in men, as it may occur in male-dominated contexts such as prisons, where they could be marginalized [19].

#### 16.3.3.5 Cultural Beliefs and Social Attitudes

As previously mentioned, the "gender paradox" in terms of suicide primarily occurs in Western countries, while in Asian countries (China, rural areas of India, Sri Lanka, Japan, etc.), the suicide rate of women is higher [26, 35], and more violent suicide methods are used (i.e., in China, insecticides in rural areas; in India or Sri Lanka, self-immolation by gas cooker or kerosene; "self-immolation of the widow" – suttee or sati – recognized and institutionalized by Hinduism until very recently, in which the widow had to throw herself into the funeral pyre of her deceased husband to atone for his sins and ensure the eternal blessings of both) [82].

Nowadays, isolated events in Indian rural communities are still found in the press: "A 65-year-old woman burned to death in the funeral pyre of her husband in the village of Tamoli Patna (in Madhya Pradesh, 415 km far from Bhopal, in Central India). The incident corresponds to a sati (ritual suicide of widows, banned since 1829). The woman, Kuttu Bai, sat on the pyre that burned the corpse of her husband, and two policemen who tried to take her out of there were deterred with stones by some 1,000 people. One of the agents, Nari Shankar Ghosh, recounted the rescue attempt and the hostile attitude of the horde. 'It is not clear if the woman did so voluntarily or was forced,' Gosh stated, adding that both Kuttu's children did nothing to prevent the incident" [83].

The situation of women in India once their husbands die is dramatic, being widowed is a "social death." In many cases, women are disowned by their family or ravaged by poverty so they end in the city of Vrindavan, called the "city of widows," a place that seems to be forgotten by time and is only 150 km far from New Delhi and 70 km from Agra, with the Taj Mahal, which was ironically built because of the love to a woman. This is the situation of women in India today. They make up a third of Vrindavan population, they roam the city living on alms and awaiting for the purification through their prayers.

Self-immolation (SI) is considered one of the most painful, dramatic, and at the same time inexplicable methods of suicide, with a high social impact. Prevalence rates are particularly high in Iran and predominantly females. They reported family and marital problems as the main triggers for SI. They often suffered from major depressive disorders, adjustment disorders, and bipolar disorders. Female gender and feelings of guilt and shame are strongly associated with SI [84].

#### 16.4 Theories of Suicide

Contemporary psychological conceptions of suicide share an eclectic position and tend to integrate psychodynamic, sociocultural, cognitive, and biological aspects. Suicidal impulses are not necessarily linked to certain specific psychopathological or personality structures. It is obvious that the Mann's diathesis-stress model [85], which understands suicidal behavior as a clinical syndrome, is influenced by some biological traits that are dependent of a number of genes and by the psychosocial environment. The suicide risk increases if there is a psychiatric disorder (preferably depressive conditions) or a chronic and disabling medical condition, if there are adverse life events, and, in structures of borderline personality in which there is an objectified increase of the impulsivity or hopelessness feelings and with a tendency to pass from the step to the act, if there are low self-esteem and lack of psychological and adaptive resources.

# 16.4.1 Psychodynamic Theories

For Freud, suicide represents the expression of aggressive impulses that are addressed to the introjected and emotionally inverted objects in a narcissist and ambivalent manner. That hostility represents the primitive reaction of the self against the objects of the external world.

Menninger talks about retroflexed suicide, which can be addressed outwards in the form of open aggression, or inward as a self-destructive tendency, based on the extreme child abandonment that we are born with and on the functioning of group institutions (family, civilization, we could include gender) that require a moral response of each member of the group).

From the perspective of Melanie Klein, that self-destructiveness should be placed within the permanent failure in the elaboration of the paranoid-schizoid position, due to a massive presence of the persecutory bad object, which would impede the

passage to the second depressive and reparative position. Grinsberg, in that line, allude to an unbearable and persecutory guilt, located in body or mind, to which the suicidal individual focuses his aggressive pulsions in order to, through self-destruction, get rid of it. ("It's not fair to be the one to bear this guilt. Since you have not understood and helped me to get rid of it, I kill myself for you to be now who owe bear it.") According to the psychiatrist Castilla del Pino: "Suicidal attitude connotes self-destructive requests for the individual that are inhibited to be projected outwards. Many melancholic individuals have, along with fantasies of self-destruction, fantasies of destruction and repulsion of the world, which are very active in the fantastic plane. (...) also exists the fantasy of reconciliation, achieved after the suicide or precisely by the suicide, so that the fantasies of self-accusation would disappear."

From a dynamic perspective, Hendin proposes suicide as form of expressions for different conflicts (Table 16.1).

## 16.4.2 Cognitive Theories

Cognitive theories have concentrated on styles of thinking that lead to an increased risk of self-harm. Cognitive studies have found that people who self-harm have more passive problem-solving styles than others with solutions being less versatile and less relevant to the problem [86]. Poor problem-solving leads to hopelessness and/or helplessness, which increases the risk of self-harm [87]. Hopelessness and poor problem-solving ability may, however, act independently of each other to increase risk. There is no evidence that any of these cognitive styles is sex-specific.

| Table 16 1 | Types of suicides  | according to Hendin  |
|------------|--------------------|----------------------|
| Table 10.1 | I ADES OF SHICINES | according to rightin |

|   | Conflict expresses   |  |
|---|--|--|
| As retaliation or revenge after abandonment | Illusion of being able to control a situation of rejection, feeling of omnipotence by means of the death   |  |
| As retroflexed murder                       | "Acting" of a violent individual that reflects, through suicide and<br>self-punishment, an internal struggle against the desire to kill or attack<br>others  |  |
| As meeting                                  | After the death of a significant figure from the emotional point of view   |  |
| As rebirth                                  | As a preliminary step or initiation rite to access a new way of life, in which the failures and frustrations of the previous one are deleted, and an everlasting union with the lost object occurs |  |
| As punishment                               | From the most intense guilt, sometimes delirious, combined with melancholic manifestations   |  |
| Psychotic suicide                           | Typical of melancholic depression with psychotic symptoms and schizophrenia. Known under the eponym "Cotard's syndrome." the patient has the delirious belief of being dead                        |  |

We could refer here to the term *learned helplessness*, by Seligman, as behavioral conditioning, and associate it with Bourdieu's *habitus*. The helplessness does not occur immediately but requires a learning process, in which the information of the relation between a given response and some reinforcement is assimilated. It is based on the consequences of perceiving a lack of correlation between the objectives proposed and the objectives achieved, causing feelings of helplessness and lack of control. The individual adapts his behavior to a situation of non-control, so motivational, cognitive, and emotional deficits are generated in him. For Seligman, a body becomes defenseless before a certain consequence when it occurs independently of all its voluntary responses. Abramson, Seligman, and Teasdaler reformulated the theory in terms of attributional processes. According to them, a negative event by itself is not sufficient to acquire learned helplessness. It would also be necessary that it was perceived as an uncontrollable, not contingent, event.

In the theory of hope, Abramson argues that there are different attributional styles. Suicidal behavior has been associated with cognitive alterations such as rigidity, defined as the difficulty to develop positive alternatives to emotional problems. Aspects such as personality or self-worth could be related to the inferences taking place about the consequences of different events.

#### 16.4.3 Social Theories

Durkheim holds that suicide is the result of the influence and control exerted by society. He proposes two variables to consider: (a) the degree of social integration of the individual and (b) the degree of social regulation of the individual desires (quote).

For Durkheim, suicide, from the cultural point of view, arises from four different categories:

**Egoistic suicide:** in individuals who, for various reasons, are not steadily and bindingly integrated into a particular social group and act based on individual and not collective interests (for existentialists, the "earthly meaning").

**Altruistic suicide:** opposite of the above, in individuals that are excessively linked to the social group they belong to, with a notable absence of individual criteria (die for the cause, religious faith, politics, etc.).

The anomic suicide: it is practiced by those who are excluded from the group they belong to, either because they have suffered an economic setback and a loss of status and social recognition or either because they have been deprived of their liberty or have been imprisoned for some type of crime. What brings these people to kill themselves is the feeling of nonacceptance and of irretrievably losing their previous social position.

**Fatalistic suicide:** it occurs in those individuals who do not resist the pressure derived from the strict conditions and regulations to which they are subjected by the social environment they live in.

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"...someone who was banned from another language..." (Amery, J). *Queer*<sup>1</sup> researchers claim that heterosexuality is approved in the dominant ideology of the "natural" sexual identity. Kosofsky considers that this belief leads to suicide in people who do not identify themselves with these symbolic forms of expression of personal identity. He argues that *queer* teenagers are two or three times more likely to attempt suicide and commit it than other young people and that in the USA, almost 30% of young people who commit suicide are gay or lesbian [88].

#### 16.4.4 Existentialist Theories

"There is but one truly serious philosophical problem and that is suicide" (The Myth of Sisyphus. Camus, 1942).

"Each of us has the plague within him" (The Plague. Camus, 1947).

The "plague" that Camus suggests is what Kierkegaard called "feeling of anxiety" in 1844, and was later called "existential anxiety" by the humanistic-existential stream, and consists of the fear of death. It is strange then that the suicidal candidate comes to embrace what he fears the most. What happens, therefore? The suicidal individual eliminates the self-preservation instinct conclusively. Suicide affects to the two essential dimensions involved in our "being-in-the-world." The term "being" corresponds to the very existence, and the term "in-the-world" refers to our place, to what happens, and to what occurs. Both terms within the expression "being-in-the-world" are fused or homogenized by the problem of meaning. And this is precisely what the suicidal subject eliminates all at once.

Irvin D. Yalom refers to the variety of "Suicide as a Magical Act," in which there is no thought of death but rather the contrary, suicide as a means of defeating death by thinking that others will remember him for a long time, the belief to continue living if he exists in the consciousness of another person [89].

The "moral or social suicide" [90] is the one through which the person looks for a long-term self-destruction, by living a degrading way of life that excludes him from social intercourse.

The "Epicurean suicide" is the one that considers death rationally and dispassionately, as Lucretius explained: "Where death is, I am not; where I am, death is not." Or in the words of Epicurus: "Death is nothing to us, since when we are, death has not come, and when death has come, we are not."

<sup>&</sup>lt;sup>1</sup>The queer theory is a hypothesis about gender affirming that sexual orientation and sexual or gender identity of people are the result of a social construction and that, therefore, there are no essential or biologically registered sex roles in human nature but socially variable forms of performing one or more sex roles.

<sup>&</sup>quot;The subject decides for itself in its full sovereignty. That doesn't mean 'against society'. The individual can destroy what he or she own, which never really was one's own, for the sake of an authenticity about which one is anxious. One lays hands on oneself (Amery J).

## 16.4.5 Classic Theories (Table 16.2)

| <b>Table 16.2</b> Types of suicide according to Sci |
|---|
|---|

|                         | Characteristics   |
|-------------------------|---|
| Rational suicide        | Derives from an objective and detailed analysis of a limit and insolvable existential situation. The psychotic subject can sometimes face, as a person, with psychosis  |
| Short-circuited suicide | Arises from a primitive impulsive discharge before an acute stressful situation. It appears as a reflex action that escapes from the psychic processing or mental development. According to the author, it is more common in women  |
| Theatrical suicide      | It comes with all an exhibitionist courtship, whose primary objective is to draw attention of those people close to the patient, rather than cause death itself. It arises from rather a form of parasuicide or parasuicidal behaviors. However, sometimes we can come across true committed suicides within this group. In these cases, the lack of impact and consideration generated from their actions, usually repetitive and clearly blackmailing to those who powerless face them (family, partner, friends), lead them to force their exhibitionist behavior or to demonstrate their anger and helplessness, increasing the lethality of their actions, with the consequent risk of death |

## 16.5 Self-Harm and Gender

The relationship of body and ego is perhaps the most mysterious complex of our lived existence or, if one prefers, of our subjectivity of our being-for-itself. We are not aware of our body during everyday existence. To our being-in-the-world our body is what Sartre called "le negligé," "le passé sous silence," neglected, one scarcely speaks of it, doesn't think of it. We are our body: we do not have it. [...] However, we become conscious of it as foreign body only when we see it with the eyes of the other [...] or when it becomes a burden. (Amery, J.)

"I hurt myself today
To see if I still feel
I focus on the pain
The only thing that's real"

("Hurt" written by Trent Reznor of *Nine Inch Nails*, sung by Johny Cash)

Non-suicidal self-injury (NSSI) is the intentional, direct injury to one's own body without suicidal intent [91, 92].

Examples of this could be cutting, burning, scratching the skin, hitting, or biting oneself.

Conventionally, the term excludes harm resulting from drug or alcohol use or from eating disorders. Self-harm involves either self-poisoning or self-injury. Self-poisoning is synonymous with taking a drug overdose or ingesting substances never designated for human consumption, and self-injury refers to any form of intentional self-inflicted damage including cutting the skin, self-immolation, swallowing objects, hanging, or jumping off buildings without (usually) ever compromising the patient's life.

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We want to review now the concepts "transference" and "acting out" that we often find in the literature as synonyms, while some authors make a difference between them. Bernard, using the description given by Laplanche and Pontalis, argues that the "transference" can take all kinds of forms (sometimes very discreet, he says) with the proviso that it holds that impulsive character, poorly motivated in the eyes of the same individual, but breaking with the usual behavior, even if the action in question is secondarily rationalized. He notes that "transference" can be differentiated from "acting out" (a kind of difficulty for the subject to fantasize) in that the latter arises in a more or less symbolic form in the course of an analytic psychotherapy, in which the subject "leaves" the psychic material of the fantasy and the mental world to perform it before the psychotherapist with an aggressive character of varying severity.

The relationship between body and language is established by the cut, which is what writes, what engraves the writing of suffering on our flesh. It is, like Pane says, what the body will make memory of. The possibility that these cuts might be "read" by others overshadows the pain, time itself can deal with them because the body has the ability to heal. The flesh owns the property of self-sealing (healing) and not to remain open. *Physical suffering is not merely a personal problem but also a problem of language. The act of self-inflicting wounds upon myself represents a temporary gesture, a psychovisual gesture that leaves marks.* [93]

As Bataille holds, "The urges of the flesh pass all bounds in the absence of controlling will. Flesh is the extravagance within us set up against the law of decency" (Western flesh is Christian, as Michel Onfray argues). "Flesh is the born enemy of people haunted by Christian taboos, but if as I believe an indefinite and general taboo does exist, opposed to sexual liberty in ways depending on the time and the place, the flesh signifies a return to his threatening freedom" [94].

Christian iconography emphasizes the role of flesh and its transgression by marking its limits as the boundary that merges the flesh with the world by means of gashes, sores, cuts, decapitations, etc. This would cause horror in contemporary art, as it happens with the photographs of David Nebreda (photographer diagnosed with paranoid schizophrenia that uses his own self-portraits. In them, he is subjected to all kinds of lacerations, fasting in the place he is confined, because this is his way of expressing the pain). However, indoctrination and repetition for centuries make that Christian iconography can assume these cuts, wounds, and sores as non-questionable beauty since it is transcendent and is built on beliefs through the centuries, following the direction of Bourdieu's *habitus*. Thus the infringed body is promoted by the ecclesiastical power, and, far from being repudiated (as with Marina Abramovic's performances) by some sectors of our society, it is valued for its beauty.

A wounded body is a crossed frontier through which we go beyond. *Body art* represented a barrier that some women artists crossed by using their body as a canvas to denounce their submission, their social underrepresentation, and their performatively marked sexuality. As Kruger shouts, "My body is a battleground." *Body art* is not only practiced by women but by all those artists who consider it a form of social and gender protest.

The way that sex and the role of women have been introduced in our society has been denounced by numerous artists, from Frida Kahlo to Louise Bourgeois, one of the first artists who used the female body to denounce the traditional role attributed to women.

Also the artist Ana Mendieta, through *Mutilated Body on Landscape* (1973) and *Tied-Up Woman*, where she appears naked, tied, and humiliatingly immobilized, denounces the situation of women. Orlan, at the same time, did so through her works, such as *Le Basier de l'Artiste* (*The Artist's Kiss*, 1977), and performance with the slogans "Art and Prostitution."

Artists such as Pane, Carolee Schneemann, Kiki Smith, Cindy Sherman, Barbara Kruger, or Lynda Benglis should be added to this list. The last three authors highlight the role of the media and the Western consumer society on their way to publicize the female imaginary, reporting the imposed media violence and making the imposed sex roles problematic [95].

In Table 16.3, we can see a classification of the different terms used for "nonfatal self-inflicted harms" by Skegg, 2005 [96].

Casadó Marín [97] classifies self-harm according to the scenario; thus she elaborates this classification by oppositions:

- Standardized self-harm/stigmatized self-harm.
- Public self-harm/private self-harm.

Standardized self-injures are those involving body art, body modification processes (diets, aesthetic care/botox, surgeries, tattoos, piercings, scarifications),

Table 16.3 Terms for nonfatal self-inflicted harm

Terms for non-fatal self-inflicted harm

Attempted suicide

Used widely (especially in North America) for episodes where there was at least some suicidal intent or sometimes without reference to intent. Repetitive bodily harm may be excluded

Deliberate<sup>a</sup> self-harm

Used in the UK for all episodes survived, regardless of intent

North American usage refers to episodes of bodily harm without suicidal intent, especially if repetitive. Usually excludes overdoses and methods of high lethality

Parasuicide

Episodes survived, with or without suicidal intent (especially in Europe) or episodes without intent. Repetitive bodily harm may be excluded

Self-poisoning or self-injury

Self-harm by these methods regardless of suicidal intent

Self-mutilation

Serious bodily mutilation (such as enucleation of the eye) without suicidal intent Repetitive superficial bodily harm without suicidal intent (synonymous with north American term deliberate self-harm). Also known as self-injurious behavior, self-wounding Sometimes the term is used to describe both the above meanings and also stereotypical self-harm in intellectually disabled people

Modified table from Keren Skegg, 2005 [97]

<sup>a</sup>The adjective "deliberate" is not favored now by patients in the UK

self-injures in the ritual context—flagellations, fasting, crucifixions—also those that take place in penitentiary contexts, hunger strikes, and primarily in religious contexts.

Public self-injures are those that occur in the ritual context.

Private self-harm is the one that occurs in situations of armed conflict (self-injury to avoid the front), in the working environment (before certain working conditions), as a sign of identity among "emos" and "gothic" young people, and in situations where self-injures are interpreted under a diagnostic criterion of mental illness.

Through this classification, the author wants to draw our attention to the fact that self-harm action not only must be rethought in exclusively pathological terms but as a practice that can be interpreted and lived in different ways depending on the context that legitimizes or stigmatized it. Thus she brings out the importance of the *social* aspect when it comes to attribute meaning to the act.

The mortification of the body in relation to the atonement of sins, or the compliance of promises or vows, has to do with the fact that, at the base of Catholicism, the body was a part of the human nature that limited the perfection of the soul, as well as the instrument through which the sin was materialized. The disciplines and rules that mortified the body are those that managed to control the sinful nature of men and women and that constantly reminded us our sinful essence.

## 16.5.1 Epidemiological Data

Although the estimated prevalence of self-harm varies depending on definitions and methodology, it is clear that it is highest during adolescence [98].

Theoretically, self-injurious behaviors can differ from suicide attempts on three basic aspects: intention, repetition, and lethality [99–103].

Hawton estimates that, over a year after someone inflicts self-harm, the suicide risk is 60 times higher than in the general population [103]. Despite self-harm predicting future suicide attempts, suicide attempts do not predict future self-harm.

In the general population, the prevalence of self-harm in adolescents is 5–37%, compared to 4% [103, 104] in the adult population [105]. In the clinical population, we found a prevalence of self-harm in adolescence of 61.2%, regarding cuts [106]. Most studies report that self-harm is more common in girls than boys, in ratios ranging from 20.3% vs. 8.5% [107] to 45.2% vs. 38.1% [108]. However, it seems that the prevalence in children is increasing in recent years [98].

A recent meta-analytic work suggests that women are significantly more likely to report a history of NSSI than men, and the gender difference was larger for clinical samples, compared to community samples; however, there was not a significant

<sup>&</sup>lt;sup>2</sup>The dark-gothic movement becomes relevant in the mid-late 1970s, while the emo movement takes place in the 1980s. Both styles include a philosophy and a way of conceiving the world that goes beyond the musical style and the clothing. Suicide and death are recurrent in the sense that gothic people gives to self-harm, while for emo people (whose name is an abbreviation of the term "emotional"), self-injuries tend to be less aggressive but more superficial cuts [97].

relation between age and effect size. Women are more likely to use some methods of NSSI (e.g., cutting) compared to men [109], and males notably report lower severity levels for most NSSI correlates (e.g., psychopathology, suicidality) than females [110].

Because adolescents aged 15–19 years are the group most likely to be involved in NSSI behavior, most existing research has focused on them. In studies from Western countries, NSSI is usually viewed as primarily a female behavior, but this has changed recently. Before 2000, most studies showed that the NSSI prevalence among female adolescents was 1.5-3 times that in male adolescents; however more recent studies have contrasting conclusions: some still insist on a gender difference in the NSSI prevalence among adolescents, while others do not find this gender difference [111]. Nevertheless, a recent meta-analysis of gender difference in NSSI prevalence, which examined some associated factors, found a female bias in NSSI prevalence among adolescents worldwide and a greater gender difference in clinical samples than in community samples [109]. The gender difference was more pronounced in clinical samples, and the authors discuss the possibility that women are more inclined to seek medical care in cases of self-harm. One reason for a higher prevalence of self-harm among young women than men could be the higher incidence of mental disorders such as depression and anxiety among adolescent women. Some studies survey that the incidence of depression among women aged 13–17 is around three to four times that of the men [112, 113].

Some recent studies found that adolescent self-harm was associated with later life adversities and affected men more than women regarding prognoses for unemployment but no gender difference for the effect of self-harm on the risk of suicide [113].

Some works examined NSSI in transgender youth individuals and found a prevalence of 41.8% [114].

The greatest risk for hospital presentations in the WHO/EURO study was in women aged 15–24 years and men aged 25–34 years [115]. Older people are at much lower risk, and when they do self-harm, they are much more likely to commit suicide later [116].

Whereas being male is an important risk factor for suicide, presentations of self-harm to health agencies are generally more common in women [115].

There are differences in sex distribution between self-cutting and overdose, with intentional overdose presentations involving a preponderance of females and self-cutting presentations displaying a more even gender distribution [117–119].

Past literature has often emphasized self-cutting as the main method of self-harm for women, but more recently research has shown a significantly higher proportion of women compared to men self-poison [120, 121].

However, compared with poisonings, cuts (with or without poisonings) are more common in men than in women, mainly in men under the age of 35 years [122].

Some studies [123] show that self-injurious behavior begins in early adolescence, with an increase in frequency and intensity in its evolution, and being more prevalent in the group of women. The underlying factors include being a victim of sexual abuse and alexithymia.

In other researches [124], we found significant correlations between self-injurious behaviors or self-mutilations and eating disorders, borderline personality disorder, post-traumatic stress disorder, and dissociative disorders. There is also relationship between the extremely high rates of self-harm and suicide attempts in girls with ADHD, being associated with inattention, hyperactivity and impulsivity, and history of trauma in childhood, such as abuse [125].

Between 70 and 80% of patients who meet the DSM-IV criteria for BPD do self-inflict injury [126], the DSM-IV shows that BPD is by 75% diagnosed in women. Some studies show that between 35 and 80% of individuals who self-inflicted injury also suffered from disordered eating behaviors [127]. For them, self-harm and eating disorders should be considered as the desire to end with the body. Recent studies suggest that there are different patterns in terms of self-directed violence in men and women [128] and that women with antisocial traits have a higher prevalence of self-harm and of being diagnosed with borderline personality disorder than men with antisocial traits [129, 130]. However, it seems that the repetition of self-harm, when there is a history of such behavior, is almost equal between men and women [131].

Some authors say that men and women with gay, lesbian, or bisexual orientation are more likely to self-harm than are heterosexuals [132, 133], although there have been conflicting results for teenage girls [134]. High risks have been identified in men who described their orientation as bisexual or who had experienced only minor same-sex attraction [132, 133]. The risk in gay, lesbian, or bisexual youth could not be attributed to the exposure to some risk factors, including depressed mood, substance abuse, and pubertal timing; in fact, most self-harm occurred after or around the time that participants realized that they were not exclusively heterosexual [134], so we can deduce that the social impact (acceptance) has a great influence on these behaviors.

# 16.5.2 Self-Injuries as a Separate Category

In the DSM-IV, non-suicidal self-injuries were only mentioned as a diagnostic criterion for the *borderline personality disorder* and described as suicidal behaviors, gestures, threats, or self-mutilating behaviors [135], in autism, mental retardation, and factitious disorders. In the DSM-IV, self-injury is not considered a disorder in itself.

In the DSM-V, the non-suicidal self-injury (NSSI) disorder as diagnostic entity was proposed as "conditions for further study." They insist on differentiating it from the borderline personality disorder, although they recognize the high existing comorbidity with both the said disorder and the eating disorders or the use of substances. They report that, although both diagnoses (along with BPD) are frequently associated, BPD does not invariably appear in all self-injurers. The difference they make between both entities is that BPD often shows hostile and aggressive behaviors, while NSSI disorder is associated with situations of closeness, intimacy, collaborative behaviors, and positive social relationships. They also allege differences in the neurotransmitter systems.

Using the DSM-V criteria (APA, 2013) [136], a sample of individuals was identified who had more general psychopathology and impairment than both clinical controls and those with NSSI not meeting criteria for NSSID, preliminarily supporting that NSSID can be reliably identified among self-injurers. Importantly, the differences remained significant after BPD was controlled for NSSI and NSSID [137].

NSSID was preliminary found to be distinguishable from BPD. In adolescents, for example, each disorder explained unique variance in emotion regulation deficits. Furthermore, BPD-positive self-injurers with NSSID reported higher levels of emotion dysregulation than BPD-negative self-injurers with NSSID. Support for the independence of NSSID should be based on an overlap between NSSID and BPD to the same extent as other disorders, as pointed out by Glenn and Klonsky. Similarly, suicidal behaviors also co-occur with depression, PTSD, substance abuse, and eating disorders, for example, as well as several other clinical behaviors, and thus an overlap between NSSI and suicidal behaviors is not necessarily evidence per se against a distinction between the two [138].

The first case of self-harm without suicidal intent is described by L. Eugene Emerson in the *Psychoanalytic Review*, published in 1913. He talked about the case of Miss A³ and proposed the challenge to understand why a person like her could come to self-inflicting injury when "this patient was not insane." It was a 23-year-old girl who had self-inflicted injuries in different parts of her body, being one of them a "w" on her calf. Throughout therapy, Miss A relates that she was sexually abused in childhood by her uncle and subsequently her father. The particularity of Emmerson consisted in investigating the experience of the symptoms, considering that the classification was less important than causation and its manifestation through the body. For Emmerson, there was a relationship between abuse and self-harm, highlighting the sexual nature of the act [139].

Other authors consider that a combination of behaviors including self-mutilation, substance abuse, and abnormal eating, often with a history of childhood sexual abuse, has been called a "trauma reenactment syndrome," with women seen as doing to their bodies something that represents what was done to them in childhood [140].

Miller described four common characteristics in these women: the feeling of struggling with their own body (the body as an enemy), the excessive discretion as a principle of life, the inability to protect themselves, and certain dissociation of consciousness where thoughts take three roles—the bully, the victim, and the witness who does not protect.

Pattison and Kahan supported the idea of a *deliberate self-harm syndrome* and described the establishment in the late adolescence, the episodes being recurrent and multiple, the low-lethality, the production of deliberated injuries to the body, and the tendency to chronicity, as major characteristics.

<sup>&</sup>lt;sup>3</sup> Miss A explained to Emmerson that she self-inflicted that injury when a man she was in love with, and with whom she had had an affair, rejected her when she proposed to him and he called her "whore." She drank alcohol, took a blade, and marked the letter w (of whore) on her calf. For Emmerson, Miss A felt that her past did not make her suitable for marriage, an idea that she could not stand, so she hurt the part of herself that represented a symbolic embodiment of her torment.

## 16.5.3 "The Portrait of the Typical Self-Injurer"

Favazza argued that self-injury affects 1% of the US population and that 97% of these are women [141]. This author defined "The portrait of the typical self-injurer" like "white woman, in her late twenties, who began hurting herself at the age of fourteen. She had injured herself at least 50 times, usually by cutting but also by other methods, including burning or self-hitting."

Galley [142] defines them as: "Bright, sensitive, helpful to others, caretakers of Their friends and family, good listeners, above average students, and invisible. They are very creative, artists and neat kids, but ones who do not make their needs well known."

Craigen [143] considers self-harm as the "new anorexia" affecting young women. Froeschle and Moyer consider that there are gender differences in terms of self-harm, being that, for males, self-injury has a meaning of rite of passage, while for women, the actions used to be more private and emotionally charged [144], which confirms Bourdieu's model of *Masculine Domination*. It is also necessary to note that, in the case of men who self-harm, we could find a double stigma since they perform an action that is considered as "feminine," which jeopardizes their masculine identity, and that, as a practice, it is considered a diverted behavior, which often leads them to remain in the anonymity.

# 16.5.4 Comprehensive Approach of the Motivations for Developing Self-Injurious Behaviors

Klonsky summarizes the main biopsychosocial models proposed by other authors [145]. These functions are not mutually exclusive, so that is common that several of them take place at once.

## 16.5.4.1 Affect Regulation Model

It suggests that self-injury is a strategy to alleviate acute and intense negative affects [146, 147]. From the systemic and cognitive perspective, it is postulated that early disabling environments hinder the development of appropriate strategies for coping with emotional stress. The individuals that have grown up in these environments and are vulnerable to emotional instability can find useful means in self-injurious behaviors to regulate and express (to others and oneself, as it brings emotional distress to consciousness itself) intolerable negative effects. Sometimes, people who self-injure state that self-injury is a way of expressing the pain to which they cannot put to words. They refer to emotions that combine pain, sadness, anger, and emotional numbing, with feelings of guilt, desires of abstraction, self-punishment, loneliness, and emptiness. Injures become the text that gives us access to the emotional universe, the universe of experience through the carnal registration. The body is the vehicle for what. The body is the vehicle for what we cannot put words. As Nietzsche, in *Thus Spoke Zarathustra*, wrote, "Of all that is written, I love only what a person hath written with his blood. Write with blood, and thou wilt find that blood is spirit."

#### 16.5.4.2 Anti-Dissociation Model

It includes self-harm as a response to states of dissociation, depersonalization, and/or derealization. Gunderson proposes that some temperamentally vulnerable subjects may be precipitated in states of dissociation when they are far from a loved object. This unpleasant state can trigger an injurious behavior with the aim of reconnecting with the sense of ownliness and body property through the pain, allowing them to feel real and revitalized. This model is more frequently seen in women [123].

The dissociation model can be linked with the affect regulation model. Some people who self-harm report feelings of dissociation from their environment: a feeling of separateness or a lack of self. The function of self-harm is often to end that dissociation [131]. Other authors suggest that self-harm can also function as a means to become dissociated, so as to escape overpowering emotion [148]. What the authors believe with this is that, in an episode of dissociation, the cuts allow reconnecting with the world through the pain (seen and interpreted pain that returns to reality), while in the episode of depersonalization, the blood pouring from the wound would be what allows reconnecting with the body.

#### 16.5.4.3 Anti-Suicide Model

Self-injurious behavior appears as an adaptive mechanism to resist the genuine desire to kill oneself. Self-inflicting a skin injury is an alternative way of expressing self-destructive thoughts and feelings, without the direct risk of dying [149]. Early child-hood experiences of neglect, abuse, or abandonment lead to low self-esteem. Self-harm allows the person to partially self-destruct without the finality of suicide and without dealing with unresolved issues from the childhood. Partial self-destruction helps the subject to maintain a "recovery envelope" and carry on living.

## 16.5.4.4 Interpersonal Influence Model

Self-injurious behavior would be used to influence on behavior, emotions, and decisions of other significant people. Self-harming should be understood as an alarm, as a means to avoid abandonment, or an attempt to be valued. Here, once again referring to Bordieu's *Masculine Domination* model, we find that this is one of the models more frequently shown by women too than men in the context of the difficulty of "externalization" of distress, of expression of the message. In this attempt, the message is on the boundary between the "self" and the outer, in the body.

## 16.5.4.5 Interpersonal Boundaries Model

It holds that the individual who has not developed an integrated sense of identity, experiences a painful difficulty to individuate and separate from significant objects. Self-injuring the skin as an organ that physically separates the individual from its environment and the others would allow him/her to specifically distinguish his/her physical identity to support his/her autonomy [150, 151]. "... [..] My body becomes my protest. My body is my protest against the great expectations of my parents, against the big and stupid expectations of the world. My body is my protest. My body is my action. My abnormal decision is my action.

In short, my life is my action [..]," as referred Angélica Liddell in La desobediencia hágase en mi vientre. Pliego de teatro y danza (Disobedience is made in my belly. Sheets of theater and dance) [152].

## 16.5.4.6 Self-Punishment Model

Marsha Linehan suggests that subjects who grew up in early unfavorable environments learn that punishment and invalidation are acceptable and even necessary to shape behaviors. Self-injury is ego-harmoniously lived, becoming a self-control conduct aimed at encouraging and maintaining collectively desirable behaviors [153].

## 16.5.4.7 Sensation-Seeking Model

Includes self-injury as a way to generate excitement or joy in an individual who is in need of intense emotions to feel connected with life. It is suggested that, biologically, they would have a basal hypo-hedonic state, which would boost them to the active pursuit of pleasurable limits sensations, yet painful. These behaviors are characterized because they are addictively repeated, favoring the production of novelty over the avoidance of self-harming [154–156].

When studying the neurobiochemical systems and processes affected in traumatic situations [157], it has been proved that a high level of emotional excitement interferes with the normal brain functions of experience processing. It has also been speculated that there are brain mechanisms that act as regulators of both pain and affect (i.e., the endogenous opioid peptides system and the serotonergic systems [158] when it comes to analyzing symptoms of acute pain in patients with BPD). The participation or discharge of endogenous opioids in moments of self-harm (Bessel van der Kolk's hypothesis, 1989) would determine, on the one hand, a degree of addiction and would explain why, in individuals with mental retardation or neurological and genetic abnormalities, pharmacological interventions focused on the endogenous opioid system reduce and sometimes eliminate self-injurious behaviors in a significant ratio of individuals [159].

#### 16.5.5 Classification of Clinical Presentations

One of the most useful classifications in clinical practice is proposed by Simeon and Favazza in 1995 (Table 16.4):

#### 16.5.6 Self-Mutilation

It constitutes a more advanced degree of the expression of self-injuries. It consists of amputating some part of the body, sometimes with "some symbolic value" (enucleation of the eye, castration, lingual mutilation), in order to self-inflict a

**Table 16.4** Classification of self-injurious behaviors clinical conditions according to Simeon and Favazza. 1995 [123, 160–162]

| Self-injurious<br>behaviors | Characteristics   | Associated pathological symptoms   |
|-----------------------------|---|--|
| Major                       | Severe tissue damage (castration, enucleation of the eye, amputation of the limbs, etc.) Sudden, impulsive, and bloody apparition   | Seventy-five percent psychotic episodes (schizophrenia, 1/2 in the first psychotic episode) [160] Severe affective disorders Intoxications Encephalitis Severe personality disorders [161, 162] Transsexualism |
| Stereotyped                 | Moderate severity of damage<br>Repetitive, rigid, and inflexible pattern<br>of presentation   | Autism<br>Severe mental retardation<br>Neurological pathology (Lesch-<br>Nyhan, Cornelia de Lange, and<br>Prader-Willi syndromes)  |
| Compulsive                  | Mild to moderate damage severity (scratching skin and producing excoriations, nail biting, hair pulling) Repetitive, compulsive pattern, sometimes even experienced as automatic acts   | Neurotic symptoms<br>Mental retardation<br>Trichotillomania  |
| Impulsive                   | Mild to moderate severity (cutting, burning skin, inserting sharp objects in subdermal space, producing even cavities in tissues) Episodic or repetitive Episodic • Fear for self-harm (ego-dystonia) • Stress prior to self-harm/posterior relief Repetitive • Certain obsessive-compulsive predisposition • High frequency (could be daily) • No extern o intern precipitant • Compulsive-addictive pattern • Usually starts in preadolescence (or before) • Could last all life • More common in women | More common in women Personality disorder (limit) PTSD Dissociative disorders Eating disorder Mood disorders Antecedents of sexual abuse in childhood (specially) [123]  |

punishment as a result of some intense experiences of guilt, or unconsciously wanting to hurt an internalized "object" in anger. It appears in various clinical conditions such as melancholic depression, schizophrenia, and mental retardation, in the intermittent explosive disorder or the post-traumatic stress disorder, usually in the context of an added substances use (usually alcohol) or in unstable personalities from the emotional point of view (borderline or antisocial) [3].

Higher rates of sexual abuse, as well as child abuse, have been described in these patients, both men and women, in addition to a greater tendency to show high levels of dissociation during their mutilating actions [163].

There is a rare disease, called apotemnophilia or body integrity identity disorder (BIID), which is defined as a syndrome in which the sufferer is concerned about the desire to self-amputate a healthy limb. It seems to be related to an alteration in the perception of identity, where limb amputation can temporarily relieve the patient's feeling of pain, adjusting to the own misperception of the identity of the person [164].

Within self-mutilation, we want to mention genital self-mutilation, which has traditionally been associated with psychotic processes (mainly schizophrenia). However, more recent reviews report that more than 60% occur in the *gender identity disorder* in men [165, 166]. Despite genital self-mutilations being less common in women [165, 167], when they occur, they have been associated with personality disorders and Münchausen syndrome [168]. There are a few cases in women regarding to a background psychosis [169].

#### 16.5.7 Reflection

The Western tendency to think in the form of binary oppositions, and therefore conceptualize the world into masculine and feminine, life drive/death drive, good/bad, etc., excluding other possibilities of identity (gender among them), greatly affects the perception of the human essence.

One of the great risks of binarism is projecting, dually and contrastively, the human identity in the form of male/female categories [170], because it seems that disparities between women and men lie in something stable, "immovable," as sexual differentiation, and not cultural issues as the gender category highlights. And as Martin Casares argues, the fear of change and destabilization of gender representation system is at the root of discrimination and difficulties to create neologisms that account for the new realities [36].

Another of the great risks is the conception of life drive/death drive as antagonistic and mutually incompatible entities. We are both, we are life and death, construction and destruction, ambivalence, the self and the others, and our body becomes the contact between both poles, the interlocutor, the paper on which history and time are written, where change is continuous; what we are now, we will never be again, and neither were before. We cannot, therefore, cling to immovable, static "identities" as, though this was possible, it would produce "symptoms." This awareness of change, this modification over time, counteracts the concept of "natural" as "what is given to us." Awareness of change is also related to the concept of effort, because of that heading to the future. And here is where the essence of the human being is settled, the eternal ambivalence, the status between hope and frustration. We move from one to another, and there is a range of possibilities in-between, or we live with both at once, as they are relative and complementary to each other. Accepting ambivalence is to accept the Other, not

only other people but also the "other self," and is to accept the limits of the human condition and, at the same time, its possibilities.

Throughout the text, we have referred to "feminine" and "masculine" conditions that we consider as own, when what we really did was to incorporate them from the environment (Bourdieu's *habitus*) but nevertheless cause us an acute discomfort. Examples of this would involve the "gender paradox of suicidal behavior," where parasuicidal behavior is more common in women as a means of "expression" of certain emotions that otherwise they find impossible to "externalize." However, we see that this is not a constant paradox in all cultures, considering that in China the percentage of women who commit suicide is higher, especially young women. With regard to men, we found the "male depressive syndrome" with more "externalizing" characteristics such as anger, aggressiveness, irritability, and hostility rather than expression of sadness and mourning, as these are considered "unmanly" behaviors.

We want to highlight the different initiatives, for example, recently, the United Nations Development Programme ("UNDP") compiled a new global index of gender inequality (Gender Inequality Index, GII), to capture women's disadvantage in the dimensions of empowerment, labor activity and reproductive health, and its use in the scientific works incorporating the gender perspective (and not only sex) as a variable of influence on mental health [29].

In relation to the body, we want to allude to the concept *biopower*, described by Foucault to refer to the practice by modern countries in the exploitation of numerous and diverse techniques to control both body and society, and this is what we may find today in what we called "standardized" self-harm, such as diets, botox aesthetic surgery, implants, muscle-building, etc.

We consider it necessary to highlight the multidimensionality/complexity of the self-harm phenomenon with the aim of achieving the cultural and symbolic dimensions found in the meanings of self-harm. It is necessary to understand self-harm in its context, where the body becomes profound through the skin. Through cuts, signs and inscriptions transmit a message to the world. The body becomes a speaking body (following Foucault's idea); thus we consider it essential to address the selfinjury experience not as a sign of specific diagnosis but as a way of being-in-theworld and in-between-the-world (body in suffering). A proven fact is that self-harm is more frequent in women. We may consider two aspects: (a) either the one based on Bourdieu's model, revealing how the "only" public space granted to women corresponds to the "exposure" of their body. Therefore, we see how women resort to this more as a means of expressing their discomfort, emotion, disagreement, etc., anything that is "banned" in terms of public expression; or (b) that there is a higher prevalence of self-harm than the registered in men, but they keep it "hidden" due to the discomfort, feelings of shame, etc. since it is considered a more "feminine" action and therefore inferior.

Anyway, self-harm is the means to express an inexpressible emotion (indicating that a clear component of cultural construction is perceived and that it comes from what is and what is not emotionally appropriate to express), and we want to highlight how, in modern times, there are other areas (specifically, pro-self-harm virtual

communities) where through forums, videos, blogs, etc., bodily self-harm is exhibited claiming a space that has been denied, expropriated in the real life.

We have addressed different concepts already revealed by the Queer theory [171, 172], like destabilizing the concepts of sex, gender, and sexuality. We join this movement considering how necessary it is that bodies are identified, not as men or women, but as speaker bodies that grant themselves the ability to access all signifying practices, as well as the ability to be enunciated, as subjects, in all the positions that history has determined as masculine, feminine, perverse, etc. This means not only to renounce a closed-minded and naturally determined sexual identity but also (as Butler. J. and Preciado B. argue) to renounce the benefits they could obtain from a naturalization of the social, economic, and legal effects of their signifying practices.

## References

- 1. Becker E. Denial of death. New York: Simon & Schuster; 1973. p. 66.
- 2. Sartre JP. In: Hepburn R, editor. Questions about the meaning of life. Religious Stud. 1965;1:125–40.
- 3. Erroteta JM, Rodrigo I. Pulsión de vida. In: Segarra R, Eguíluz I, editor. Introducción a la Psicopatología, una visión actualizada. 3ª ed. Panamericana: España. Ed.; 2013.
- 4. Yalom ID. Psicoterapia existencial. Ed. Herder. 2011. p. 47.
- Jaspers K. In: Choron J, editor. Death and Western thought. New York. Collier Books; 1963.
   p. 226.
- 6. Mitzrahi L. La mujer transgresora. Barcelona: Emecé; 1992.
- 7. Bourdieu P. La dominación masculina. 7ª ed. Barcelona. Ed. Anagrama; 2012.
- 8. Esteban ML. Los estudios de salud y el género: las ventajas de un enfoque antropológico y feminista. Salud Colectiva Buenos Aires. 2006;2(1):9–20.
- Sims A. Affective and emotional disorders. In: Andrew CP, editor. Sims' symptoms in the mind. An introduction to descriptive psychopathology. 3<sup>a</sup> ed. Oxford: Elsevier Limited; 2003.
- 10. Butler J. Undoing gender. New York: Routledge; 2006.
- Feder. "Cuadernos de Psicoanálisis". Plaza Valdés: Asociación Psicoanalítica Mexicana; 1998.
- 12. González de Chávez MA. Feminidad y masculinidad. Madrid: Biblioteca Nueva; 1999.
- 13. Chasseget-Smirgel J. "El poeta y los sueños diurnos: un comentario" y de EMDE, R.N., "La fantasía y más allá de la fantasía" en "En torno a Freud: "El poeta y los sueños diurnos", Fonagy y otros. Madrid: Biblioteca Nueva; 1999.
- López Mondéjar L. 2002. La quietud de Penélope: sublimación, creación y feminidad. Ad Hoc. Murcia: CENDEAC: 2009.
- 15. Frankl V. El hombre en busca de sentido. Barcelona: Herder; 1984.
- 16. WHO. World health statistics. Geneva: World Health Organization; 1989.
- 17. WHO. World report on violence and health. Geneva: World Health Organization; 2002.
- 18. Hawton K, Van Heeringen K. Suicide. Lancet. 2005;373:1372-81.
- Canetto SS, Sakinofsky I. The gender paradox in suicide. Suicide Life Threat Behav. 1998:28:1–23.
- 20. Beautrais AL. Gender issues in youth suicidal behaviour. Emerg Med (Fremantle). 2002;14:35–42.
- Henderson JP, Mellin C, Patel F. Suicide—a statistical analysis by age, sex and method. J Clin Forensic Med. 2005;12:305–9.

- Freeman A, Mergl R, Kohls E, Szekely A, Gusmao R, Arensman E, Koburger N, Hegerl U, Rummel-Kluge C. A cross-national study on gender differences in suicide intent. BMC Psychiatry. 2017;17:234.
- 23. WHO. World health statistics. Geneva: World Health Organization. 2017.
- 24. World Health Organization [WHO]. Preventing suicide. A global imperative. Geneva: World Health Organization; 2014. p. 92.
- 25. Chen YY, Chen M, Lui CSM, Yip PSF. Female labour force participation and suicide rates in the world. Soc Sci Med. 2017;195:61–7. https://doi.org/10.1016/j.socscimed.2017.11.014.
- Chang Q, Yip PSF, Chen YY. Gender inequality and suicide gender ratios in the world. J Affect Disord. 2018;243:297–304. https://doi.org/10.1016/j.jad.2018.09.032.
- 27. Philips MR, Li X, Zhang Y. Suicide rates in China 1995–99. Lancet. 2002;359:835–40.
- 28. Van Rijsselberghe I, Prtzky G, Van Heeringen C. Zelfbeschadigend gedrag bij adolescenten in Vlanderen. Tijdschr Psychiatr. 2009;51:629–40.
- 29. Permanyer I. A critical assessment of UNDP's gender inequality index. Fem Econ. 2013;19(2):1–37.
- 30. Madge N, Hewitt A, Hawton K, de Wilde EJ, Ystgaard M (2008) Deliberate sel-harm within an international community sample of young people: comparative findings from the Child & Adolescent Self-harm in Europe (CASE) Study. J Child Psychol Psychiatry. 49(6):667–77. https://doi.org/10.1111/j.1469-7610.2008.01879.x
- 31. Klein A, Golub SA. Family rejection as a predictor of suicide attempts and substance misuse among transgender and gender nonconforming adults. LGTB Heal. 2016;3:193–9.
- Peterson CM, Mattheus A, Copps-Smith E, et al. Suicidality, self-harm and body dissatisfaction in transgender adolescents and emerging adults with gender dysphoria. Suicide Life-Threatening Behav. 2017;47:475–82.
- Duffy ME, Henkel KE, Joiner TE. Prevalence of self-injurious thoughts and behaviors in transgender individuals with eating disorders: a national study. J Adolesc Health. 2018:1–6. https://doi.org/10.1016/j.jadohealth.2018.07.016.
- 34. Möller-Leimkühler AM. The gender gap in suicide and premature death or: why are men so vulnerable? Eur Arch Psychiatry Clin Neurosci. 2003;253:1–8.
- 35. Schrijvers DL, Bollen J, Sabbe BGC. The gender paradox in suicidal behavior and its impact on the suicidal process. J Affect Disord. 2012;138:19–26.
- Martín Casares A. Antropología del género: culturas, mitos y estereotipos sexuales. 3ª ed. Madrid: Ediciones Cátedra; 2012. p. 51.
- Yip PSF. Suicide in Asia. Causes and prevention. Hong Kong: Hong Kong University Press; 2008.
- 38. Philips MR Cheng HG. The changing global face of suicide. The Lancet. 2012;379(9834):2318–9.
- 39. Soman CR, Safraj S, Kutty V, Vijayakumar K, Ajayan K. Suicide in South India: a community-based study in Kerala. Indian J Psychiatry. 2009;51(4):261–4.
- 40. Sudhir Kumar CT, Mohan R, Ranjith G, Chandrasekaran R. Gender differences in medically serious suicide attempts: a study from South India. Psychiatry Res. 2006;189:465–6.
- Yip PSF, Liu KY. The ecological fallacy and the gender ratio of suicide in China. Br J Psychiatry. 2006;189:465–6.
- 42. Van Heeringen K. The suicidal process and related concepts. In: Van Heeringer K, editor. Understanding suicidal behaviour. The suicidal process approach to research, treatment and prevention. Chichester: Wiley; 2001. p. 3–15.
- 43. Runeson BS, Beskow J, Waern M. The suicidal process in suicides among young people. Acta Psychiatry Scand. 1996;93:35–42.
- 44. Kim B, Lee J, Kim E, Ha K, Kim YS, Ahm YM. Sex difference in risk period for completed suicide following prior attempts: KNSS. J Affect Disord. 2018;227:861–8.
- Asgeirsdóttir HG, Valdimarsdottir UA, Porsteinsdottir PK, Lund SH, Tomasson GT, Nyberg U, Hauksdóttir A. The association between different traumatic life events and suicidality. Eur J Psychotraumatol. 2018;9:1510279. https://doi.org/10.1080/20008198.2018.1510279.

- 46. Arensman E, Kerkhof JF. Classification of attempted suicide: a review of empirical studies, 1963–1993. Suicide Life Threat Behav. 1996;26:46–67.
- 47. Neeleman J, de Graaf R, Vollebergh W. The suicidal process; prospective comparison between early and later stages. J Affect Disord. 2004;82:43–52.
- 48. Cupina D. Life events, gender and suicidal behaviours in the acute community setting. Australas Psychiatry. 2009;17:233–6.
- 49. Murphy GE. Why women are less likely than men to commit suicide. Psychiatry. 1998;39:165–75.
- 50. Eaton DK, Kann L, Kinchen S. Youth risk behavior surveillance-United States, 2007. Morbidity and mortality weekly report. Surveill Summaries. 2008;57(4):1–131.
- 51. Blair-West GW, Cantor CH, Eyeson-Annan ML. Lifetime suicide risk in major depression: sex and age determinants. J Affect Disord. 1999;55:171–8.
- 52. Kölves K, Ide N, De Leo D. Suicidal ideation and behaviour in the aftermath of marital separation: gender differences. J Affect Disord. 2010;120:48–53.
- 53. Qin P, Agerbo E, Westergard-Nielsen N, Eriksson T, Mortensen PB. Gender differences in risk factors for suicide in Denmark. Br J Psychiatry. 2000;177:546–50.
- 54. Hawton K. Sex and suicide. Gender differences in suicidal behaviour. Br J Psychiatry. 2000;177:484–5.
- Sengupta B, Jantzen RH. Incidence of female suicide in New York City: how important are socioeconomic factors? Social psychiatry and psychiatric epidemiology Cham: Springer Nature; 2018. https://doi.org/10.1007/s00127-018-1600-4.
- Bebbington PE, Cooper C, Minot S, Brugha TS, Jenkins R, Meltzer H, Dennis M. Suicide attempts, gender and sexual abuse: data from the 2000 British psychiatric morbidity survey. Am J Psychiatry. 2009;166:1135–40.
- Molnar BE, Berkman LF, Buka SL. Psychopathology, childhood sexual abuse and other childhood adversities: relative links to subsequent suicidal behaviour in the US. Psychol Med. 2001;31:965–77.
- Martin G, Bergen HA, Richardson AS, Roeger L, Allison S. Sexual abuse and suicidality: gender differences in a large community simple of adolescents. Child Abuse Negl. 2004;28:491–503.
- 59. Olshen E, McVeigh KH, Wunsch-Hitzig RA, Ricket VI. Dating violence, sexual assault and suicide attempts among urban teenagers. Arch Pediatr Adolesc Med. 2007;161:539–45.
- Gray S, Rarick S. Exploring gender and racial/ethnic differences in the effectos of child sexual abuse. J Child Sex Abus. 2018;27(5):570–87. https://doi.org/10.1080/10538712.2018 .1484403.
- 61. Devries KM, Mak JY, Bacchus LJ, Child JC, Falder G, Petzold M, Astbury J, Watts C. Intimate partner violence and incident depressive symptoms and suicide attempts: a systematic review of longitudinal studies. PLoS Med. 10(5):e1001439. https://doi.org/10.1371/journal.pmed.1001439.
- Arsenault-Lapierre G, Kim C, Turecki G. Psychiatric diagnoses in 3275 suicides: a metaanalysis. BMC Psychiatry. 2004;4:4

  –37.
- 63. Kessler RC, McGonable KA, Swartz M. Sex and depression in the National Comorbidity Survey; lifetime prevalence, chronicity and recurrence. J Affect Disord. 1993;29:85–96.
- 64. American Psychiatric Association. Diagnostic and statistical manual of mental disorders. 4th ed. Washington, DC: APA; 2000.
- Skodol AE, Bender DS. Why are women diagnosed borderline more than men? Psychiatry Q. 2003;74:349–60.
- Paris J. Gender differences in personality traits and disorders. Curr Psychiatry Rep. 2004;6:71–4.
- 67. Oquendo MA, Bongiovi-García ME, Galfalvy H, Goldberg PH, Grunebaum MF, Burke AK, Mann JJ. Sex differences in clinical predictors of suicidal acts after major depression: a prospective study. Am J Psychiatry. 2007;164:134–41.
- 68. Brezo J, Paris J, Turecki G. Personality traits as correlates of suicidal ideation, suicide attempts, and suicide completions: a systematic review. Acta Psychiatr Scand. 2006;113:180–206.

- 69. Strüber D, Lück M, Roth G. Sex, aggression and impulse control: an integrative account. Neurocase. 2008;14:93–121.
- 70. DeHert M, McKenzie K, Peuskens J. Risk factors for suicide in young people suffering from schizophrenia: a long-term follow-up study. Schizophr Res. 2001;47:127–34.
- Bjerkeset O, Romundstad P, Gunnell D. Gender differences in the association of mixed anxiety and depression with suicide. Br J Psychiatry. 2008;192:474–5.
- Bradvik L, Mattisson C, Brogen M, Nettelbladt P. Long-term suicide risk of depression in the Lundby cohort 1947–1997-severity and gender. Acta Psychiatr Scand. 2008;117:185–91.
- Halladay JE, Boyle MH, Munn C, Jack SM, Georgiades K. Sex differences in the association between cannabis use and suicidal ideation and attempts, depression, and psychological distress among Canadians. Can J Psychiatr. 2018;27:706743718804542. https://doi.org/10.1177/0706743718804542).
- Liu KY, Chen EY, Cheung AS, Yip PS. Psychiatric history modifies the gender ratio of suicide: an East and West comparison. Soc Psychiatry Psychiatr Epidemiol. 2009;44:130–4.
- Chang CM, Liao SC, Chiang HC, Chen YY, Tseng KC, Chau YL, Chang HJ, Lee MB. Gender differences in healthcare service utilisation 1 year before suicide: national record linkage study. Br J Psychiatry. 2009;195:459–60.
- Rutz W, von Knorring L, Pihlgren H, Rihmer Z, Walinder J. Prevention of male suicides: lessons from Gotland study. Lancet. 1995;345:524.
- 77. Cochran SV, Rabinowitz FE. Men and depression. Clinical and empirical perspectives. San Diego: Academic Press; 2002.
- Kanchan T, Menezes RG. Suicidal hanging in Manipal, South India victim profile and gender differences. Forensic Leg Med. 2008;15:493–6.
- 79. Kanchan T, Menezes RG. Suicidal poisoning in Southern India: gender differences. Forensic Leg Med. 2008;15:7–14.
- 80. Kanchan T, Menon A, Menezes RG. Methods of choice in completed suicides: gender differences and review of literature. J Forensic Sci. 2009;54:938–42.
- 81. Cooper PN, Milroy CM. The coroner's system and underreporting of suicide. Med Sci Law. 1995;35:319–26.
- 82. Baca García E, Ceverino Domínguez A Pérez Rodríguez MM, Saiz Ruiz J. Aspectos diferenciales en la conducta suicida. In: Ferrando Bundío L, editor. Salud Mental y género en la práctica clínica. Barcelona: Ars Médica; 2007.
- 83. Reportaje: Una viuda en la pira. Periódico ElPaís. 8 de agosto, 2002. Sociedad.
- 84. Ahmadpanah M, Rahighi AH, Haghighi M. Female gender, marital and family problems, and feelings of guilt are related to self-immolation suicide attempts. Neuropsychobiology. 2017;76(1):51–8. https://doi.org/10.1159/000487859.. Epub 2018 Apr 12
- 85. Mann JJ, Waternaux C, Haas GL, Malone K. Toward a clinical model of suicidal behavior in psychiatric patients. Am J Psychiatry. 1999;156(2):181–9.
- Orbach I. Styles of problem-solving suicidal individuals. Suicide Life Threat Behav. 1990;20:56–64.
- 87. Schotte D, Clum G. Suicide ideation in a college population: a test of model. J Consult Clin Psychol. 1982;50:690–6.
- 88. Kosofsky Sedwick E. A(queer) y ahora. En Mérida Jiménez R (ed) Sexualidades transgresoras. Una antología de estudios queer. Icaria, Barcelona. 2002. p. 29–54.
- 89. Yalom ID. Psicoterapia existencial. Barcelona: Herder; 1984. p. 451.
- 90. Rojas Montes. In: López Sánchez JM, Higueras Aranda A, editors. Compendio de Psicopatología. 4ª ed. Granada: Círculo de estudios psicopatológicos; 1996.
- 91. International Society for the Study of Self-injury. Definition of non-suicidal self-injury. 2017. http://www.itriples.org/isss-aboutself-i.htlm.
- Nock MK, Favazza AR. Nonsuicidal self-injury: definition and classification. In: Nock MK, editor. Understanding nonsuicidal self-injury. Origins, assessment and treatment. Washington, DC: American Psychological Association; 2006. p. 9–18.
- Pane G. In: Aznar Almazán S, editor. El arte en acción. 2° ed. San Sebastián: Ed. Nerea; 2006.
   p. 67–8.

- 94. Bataille G. L'erotisme. Paris: Unione Generale d'éditions; 1974.
- 95. Aguilar T. Cuerpos sin límites. Madrid: Casimiro Ed; 2013.
- 96. Skegg K. Self-harm. Lancet. 2005;366:1471-83.
- Casadó Marín, L. Antropología de las autolesiones corporals: cuerpo, identidad, género y emociones. Alemania; Editorial Académica Española. OmniScriptum Gmbh&Co.KG.; 2013.
- 98. Rodham K, Hawton K. Epidemiology and phenomenology of nonsuicidal self-injury. In: Nock MK, editor. Understanding nonsuicidal self-injury. Origins, assessment and treatment. Washington, DC: American Psychological Association; 2009. p. 9–18.
- Guertin T, Lloyd-Richardson E, Spirito A, Donaldson D, Boergers J. Self-mutilative behavior in adolescents who attempt suicide by overdose. J Am Acad Child Adolesc Psychiatry. 2001:40:1062–9.
- 100. Muehlenkamp JJ, Gutiérrez PM. An investigation of differences between self-injurious behavior and suicide attempts in a sample of adolescents. Suicide Life Threat Behav. 2004;34:12–23.
- 101. Patton GC, Harris R, Carlin JB, et al. Adolescent suicidal behaviours: a population-based study of risk. Psychol Med. 1997;27:715–24.
- 102. Brown MZ, Comtois KA, Linehan MM. Reasons for suicide attempts and nonsuicidal self-injury in women with borderline personality disorder. J Abnorm Psychol. 2002;111:198–202.
- 103. Harriss L, Hawton K. Suicidal intent in deliberate self-harm and the risk of suicide: the predictive power of the Suicide Intent Scale. J Affect Disord. 2005;86:225–33.
- 104. Muchlenkamp JJ, Claes L, Havertape L, Plener PL. International prevalence of non-suicidal self-injury and deliberate self-harm. Child Adolesc Psychiatry Ment Health. 2012;6:10.
- 105. Briere J, Gil E. Self-mutilation in clinical and general population samples: prevalence, correlates, and functions. Am J Orthopsychiatry. 1998;68:609–20.
- DiClemente RJ, Ponton LE, Hartley D. Prevalence and correlates of cutting behavior: risk for HIV transmission. J Am Acad Child Adolesc Psychiatry. 1991;30:735–9.
- 107. Laye-Gindhu A, Schonert-Reichl KA. Nonsuicidal self-harm among community adolescents: understanding the "whats" and "whys" of self-harm. J Youth Adolesc. 2005;34:447–57.
- 108. Lundh LG, Wangby-Lundh M, Bjärehed J. Deliberate self-harm and psychological problems in young adolescents: evidence of a bidirectional relationship in girls. Scand J Psychol. 2011;52:476–83.
- 109. Bresin K, Schoenleber M. Gender differences in the prevalence of non-suicidal self-injury: a meta-analysis. Clin Psychol Rev. 2015;38:55–64.
- Victor SE, Muehlenkamp JJ, Hayes NA, Lengel GJ, Styer DM, Washburn JJ. Characterizing gender differences in nonsuicidal self-injury: evidence from a large clinical sample of adolescents and adults. Compr Psychiatry. 2018;82:53

  –60.
- 111. Yang X, Feldman M. A reversed gender pattern? A meta-analysis of gender differences in the prevalence of non-suicidal self-injurious behavior among Chinese adolescents. BMC Public Health. 2018;18:66. https://doi.org/10.1186/s12889-017-4614-z).
- 112. Breslau J, Gilman SE, Stein BD, Ruder T, Gmelin T, Miller E. Sex differences in recent first onset depression in an epidemiological sample of adolescents. Transl Psychiatry. 2017;7(5):e1139. https://doi.org/10.1038/tp.2017.105.
- 113. Beckman K, Lysell H, Haglund A, Dahlin M. Prognoses after self-harm in youth: exploring the gender factor. Soc Psychiatry Psychiatr Epidemiol. 2018. https://doi.org/10.1007/s00127-018-1618-7.
- 114. Peterson CM, Mattheus A, Copps-Smith E, et al. Suicidality, self-harm and body dissatisfaction in transgender adolescents and emerging adults with gender dysphoria. Suicide Life-Threat Behav. 2017;47:475–82.
- 115. Schmidtke A, Bille-Brahe U, DeLeo D. Attempted suicide in Europe: rates, trends and sociodemographic characteristics of suicide attempters during the period 1989–1992. Results of the WHO/EURO Multicentre Study on Parasuicide. Acta Psychiatr Scand. 1996;93:327–38.
- 116. Hepple J, Quinton C. One hundred cases of attempted suicide in the elderly. Br J Psychiatry. 1997;171:42–6.

- 117. Harriss L, Hawton K, Zahl D. Value of measuring suicidal intent in the assessment of people attending hospital following self-poisoning or self-injury. Br J Psychiatry. 2005;186:60–6.
- Hawton K, Harriss I, Simkin S. Self-cutting: patient characteristics compared with selfpoisoners. Suicide Life Threat Behav. 2004;34:199.
- 119. Lilley R, Owens D, Horrocks J. Hospital care and repetition following self-harm: multicenter comparison of self-poisoning and self-injury. Br J Psychiatry. 2008;192:440–5.
- 120. Horrocks J. Attendances in the accident and emergency department following self-harm: a descriptive study. Leeds: Academic Unit Psychiatry and Behavioural Sciences, University of Leeds; 2002.
- Hawton K. Self-harm in England: a tale of three cities. Soc Psychiatry Psychiatr Epidemiol. 2008;42:513–21.
- 122. Arensman E, Larkin C, Corcoran P, Reulbach P, Perry IJ. Factors associated with self-cutting as a method of self-harm: findings from the Irish National Registry of Deliberate Self-Harm. Eur J Pub Health. 2014;24(2):292–7.
- 123. Favazza AR, Conterio K. Female habitual self-mutilators. Acta Psychiatr Scand. 1989;79(3):283–9.
- 124. Zlotnick C, Shea MT, Pearlstein T, Simpson E, Costello E, Begin A. The relationship between dissociative symptoms, alexithymia, impulsivity, sexual abuse and self mutilation. Compr Psychiatry. 1966;37(1):12–6.
- 125. Stephen Hinshaw, J Consult Clin Psychol. University of Berkeley. 2012.
- 126. Mendoza Y, Pellicer F. Percepción del dolor en el síndrome de comportamiento autolesivo. Salud Mental. 2002;25(4):10–6.
- 127. Austin L, Kortum J. Self-injury: the secret language of pain for teenagers. Education. 2004;124:517–27.
- 128. Sadeh N, Javdani S, Finy MS, Verona E. Gender differences in emotional risk for self- and other-directed violence among externalizing adults. J Consult Clin Psychol. 2011;79:106–17.
- Jordan BK, Schlenger WE, Fairbank JA, Caddell JM. Prevalence of psychiatric disorders among incarcerated women: II. Convicted felons entering prison. Arch Gen Psychiatry. 1996;53:513–9.
- 130. Ji W, Burnette ML, South SC, Chauhan P, Bale R, Friend R, Van Patten I. Psychopathy in women: structural modeling and comorbidity. Int J Law Psychiatry. 2003;26:223–42.
- 131. Horrocks J, House A. Self-harm and suicide in women. In: Kohen D, editor. Oxford textbook of women and mental health. Oxford: Oxford University Press; 2010.
- 132. Skegg K, Nada-Raja S, Dickinson N, Paul C, Williams S. Sexual orientation and self-harm in men and women. Am J Psychiatry. 2003;160:541–6.
- 133. Jorm AF, Korten AE, Rodgers B, Jacomb PA, Christensen H. Sexual orientation and mental health: results from a community survey of young and middle-aged adults. Br J Psychiatry. 2002;180:423–7.
- 134. Wichstrom I, Hegna K. Sexual orientation and suicide attempt: a longitudinal study of the general Norwegian adolescent population. J Abnorm Psychol. 2003;112:144–51.
- 135. American Psychiatric Association. Diagnostic and statistical manual of mental disorders. 4th ed. Washington, DC: American Psychiatric Association; 1994.
- 136. American Psychiatric Association . Diagnostic and statistical manual of mental disorders. 5th ed. Washington DC: American Psychiatric Association; 2013.
- 137. Gratz KL, Dixon-Gordon KL, Chapman AL, Tull MT. Diagnosis and characterization of DSM-5 nonsuicidal self-injury disorder using the clinician-administered nonsuicidal selfinjury disorder index. Assessment. 2015;22:527.
- 138. Zetterqvist M. The DSM-5 diagnosis of nonsuicidal self-injury disorder: a review of the empirical literature. Child Adolesc Psychiatry Ment Health. 2015; 9: 31. Published online 2015 Sep 28. https://doi.org/10.1186/s13034-015-0062-7.
- 139. Caryn L. The construction of female sexual trauma. In: Micale MS, Lerner P, editors. Traumatic pasts history, psychiatry and trauma in the modern age (1870–1930). Cambridge: Cambridge University Press; 2001.
- 140. Miller D. Women who hurt themselves. New York: Basic Books; 1994.

- 141. Favazza A. What we know about affective disorders? Am J Psychiatry. 1988;143(10):1328.
- 142. Galley M. Student self-harm: silent school crisis. Educational Week. 2003;23(14):14-6.
- 143. Craigen LM, Foster V. It was like a partnership of the two of us against cutting: investigating the counseling experience of young adult women who self-injure. J Ment Health Couns. 2009;31:76–94.
- 144. Froeschle J, Moyer M. Just cut it out: legal and ethical challenges in counseling students who self-mutilate. Professional School Counseling. 2004;7:231–5.
- 145. Klonsky ED. The functions of deliberate self-injury: a review of the evidence. Clin Psychol Rev. 2007;27:226–39.
- Favazza AR, Rosenthal RJ. Diagnostic issues in self-mutilation. Hosp Community Psychiatry. 1993;44:134–40.
- 147. Gratz KL. Risk factors for deliberate self-harm among female college students: the role and interaction of childhood maltreatment, emotional inexpressivity, and affect intensity/reactivity. Am J Orthopsychiatry. 2006;76:238–50.
- 148. Suyemoto KL. The functions of self mutilation. Clin Psychol Rev. 1988;18:531-54.
- Haines J, Williams CL, Brain KL, Wilson GV. The psychophysiology of self-mutilation. J Abnorm Psychol. 1995;104:471–89.
- 150. Chowanec GD, Josephson AM, Coleman C, Davis H. Self-harming behavior in incarcerated male delinquent adolescents. J Am Acad Child Adolesc Psychiatry. 1991;30:202–7.
- 151. Carroll J, Schaffer C, Spensley J, Abramowitz SI. Family experiences of self-mutilating patients. Am J Psychiatry. 1980;137:852–3.
- Liddell A In: Disobedience is made in my belly. Sheets of theater and dance. Madrid: Aflera Producciones SL; 2008.
- 153. Friedman M, Glasser M, Laufer E, Laufer M, Wohl M. Attempted suicide and self-mutilation in adolescence: some observations from a psychoanalytic research project. Int J Psychoanal. 1972;53:179–83.
- 154. Klonsky ED, Oltmanns TF, Turkheimer E. Deliberate self-harm in a nonclinical population: prevalence and psychological correlates. Am J Psychiatry. 2003;160:1501–8.
- Nixon MK, Cloutier PF, Aggarwal S. Affect regulation and addictive aspects of repetitive selfinjury in hospitalized adolescents. J Am Acad Child Adolesc Psychiatry. 2002;41:1333–41.
- Osuch EA, Noll JG, Putnam FW. The motivations for self-injury in psychiatric inpatients. Psychiatry. 1999;62:334–46.
- 157. Yehuda R. Biological factors associated with susceptibility to posttraumatic stress disorder. Can J Psychiatr. 1999;44:34–9.
- 158. Simons DG, Hong CZ, Simons LS. Endplate potentials are common to midfiber myofacial trigger points. Am J Phys Med Rehabil. 2002;81(3):212–22.
- 159. Sandman CA, Touchette P. Opioid and the maintenance of self-injurious behavior. In: Schoeder SR, Oster-Granite ML, Thompson T, editors. Self-injurious behavior: gene-brain-behavior relationships. Washington, DC: American Psychological Association; 2002. p. 191–204.
- 160. Large M, Babidge N, Andrews D, Storey P, Nielssen O. Major self-mutilation in the first episode of psychosis. Schizophr Bull. 2009;35:1012–21.
- 161. Cleveland SE. Three cases of self-castration. J Nerv Ment Dis. 1956;123:386–91.
- 162. Kushner AW. Two cases of auto-castration due to religious delusions. Br J Med Psychol. 1967;40:293–8.
- 163. Zlotnick C, Mattia JI, Zimmerman M. Clinical correlates of self-mutilation in a simple of general psychiatric patients. J Nerv Ment Dis. 1999;187(5):296–301.
- 164. Bou Khalil R, Richa S. Apotemnophilia or body integrity identity disorder: a case report review, vol. 11; 2012. p. 313.
- 165. Eke N. Genital self mutilation: there is no method in this madness. BJU Int. 2000;85(3):295-8.
- 166. Catalano G, Catalano MC, Carroll K. Repetitive male genital self-mutilation: a case report and discussion of possible risk factors. J Sex Marital Ther. 2002;28(1):27–37.
- 167. Millán-González R. Genital mutilation in a transsexual patient: is it an indication of an imprecisely defined pathological spectrum? Rev Colomb Psiquiatr. 2010;39(3):461–634.

- 168. Ajibona O, Hartwell R. Feigned miscarriage by genital self-mutilation in a hysterectomised patient. J Obstet Gynaecol. 2002;22(4):451.
- 169. McGuire BE, Ahmed SN. Genital self-mutilation: a literature review and case report. Sex Marital Ther. 1998;13(2):201–5.
- 170. Reiter R. Toward and anthropology of women. Nueva York-Londres: Monthly Review Press; 1975.
- 171. Kosofsky Sedgwick E. Identidades, minorías, comunidades. Construir significados queer. Madrid: Non grata; 1993. p. 3.
- 172. Preciado B. Manifiesto contrasexual. Prácticas subversivas de identidad sexual. Madrid; Pensamiento-Opera prima; 2002.



# **Use, Misuse and Gender Differences**

17

## Carmen Meneses and Iñaki Markez

#### **Abstract**

The use of drugs in Western societies has been associated with male gender roles and behaviours, being poorly regarded in female behaviour. For males, drug use has most often been regarded as a risk behaviour, a deviation or an illness when serious consequences for health have arisen. On the other hand, for women, drug use has been viewed as a vice, a disease, a response to female problems or disorders and, above all, a transgression of women's traditional roles.

The vulnerability of women is exacerbated by their invisibility: few resources are allocated to cover the needs of female drug users; there is a shortage of staff trained on gender matters; treatments begin at a late stage; a growing number of women are imprisoned in men's prisons; few if any women hold responsible positions in drug user associations; etc. Thus, the invisibility that exacerbates their vulnerability results in complete exclusion in some cases. At the same time, the invisibility of female drug users is obvious not only when they are the object of policies but also when they are the subject.

We can foresee that as a gender approach is incorporated into the policy guidelines designed and issued by the various organisations dedicated to drafting drug policies in the European Union, and as these guidelines are effectively applied by the member States, we will be able to obtain clearer information about the problematic uses and the contexts in which drugs are used and about the treatment programmes and the accessibility by all the people who need such programmes, which also cover women's needs, with their strategies and resources.

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### 17.1 Introduction

Throughout the twentieth century, drug use has varied according to the social, political and legal context particular to each moment in Western society. The use of tobacco, alcohol and other drugs has been socially accepted to varying degrees depending on the gender roles specific to historical moment. In the first half of the twentieth century, practically all nontherapeutic consumption of psychotropic substances was tolerated and accepted among males but not among women. Female participation in drug use rose gradually from the 1960s onwards, as the use of legal and illegal drugs started to spread in the population and as women's social participation increased.

The spread of drug use would be conditioned by the social roles and stereotypes attributed to each sex. Thus, women participated in drug use as drugs became more socially accepted and tolerated, keeping away from those drugs that are criminalised or stigmatised for women. Therefore we can talk of two types of drug use patterns [1]. There is a greater female presence in the use of legal drugs use: tobacco, alcohol, psychotropic drugs, as we will subsequently show. Meanwhile, males were most highly represented in the use of illegal drugs, with women remaining a minority in these cases. In the first decade of the new century, there seems to be a certain convergence of drug use among the youngest population groups, and what's more, in some cases, as we show later on, young girls will be the biggest users, especially of the most socially accepted drugs.

What lies behind these differences between boys and girls, men and women, in drug use and abuse? To answer this question, we must return to the gender approach; in other words, we must consider the cultural lines that are drawn between male and female gender roles, relationships and representations [2].

The use of drugs in Western societies has been associated with masculine roles and behaviours, being poorly regarded in feminine behaviour. For males, drug use has most often been regarded as a risk behaviour, a deviation or an illness when serious consequences for health have arisen. On the other hand, for women, drug use has been viewed as a vice, a disease, a response to female problems or disorders and, above all, a transgression of women's traditional roles [3, 4].

Women have remained invisible due to the small extent to which they initially participated in drug use, with the consequence that they received insufficient attention in studies on drugs and in the various proposals for intervention and prevention [5, 6]. As the female presence in drug use has grown, drugs have become increasingly criminalised and stigmatised for women, associated with prostitution and with the neglect of their responsibilities as mothers. The supremacy of men and the invisibility of women have led to the differences in their behaviours, women's subordination to men and the different power relations between the sexes being overlooked.

The type of drug use helps us classify the pattern of use and the problems associated with drug use. Therefore, the experimental use and intensive use of a drug should not be evaluated in the same way, although, depending on the substances used and the circumstances, either of them may present great risks to user health. Using drugs is not synonymous with drug dependency or drug-related problems.

Thus, the evaluation of dependency or problematic use may vary depending on the outlook of the users, of the professionals, of the social representations and of their cultural contexts. Therefore, and according to Camí, the distinction between drug use and abuse is a value judgement that refers to the ingestion of psychotropic drugs using parameters determined by a culture's social and medical use of drugs [7].

# 17.2 Addiction Pattern and Gender Differences

In the explanation we make about patterns of drug use among women, we will present, on the one hand, comparative data for both sexes, which will allow us to show the differences, and, on the other hand, we will differentiate between the data obtained about drug use<sup>1</sup> and that which covers drug problems or dependency.<sup>2</sup>

### 17.2.1 Alcohol and Tobacco Use

Since 1975, litres of pure alcohol consumed per capita has dropped from 14.2 in that year to 9.5 in 1995 and 10 L in 2016 [8]. In other words, in general terms the Spanish population consumes less litres of alcohol per capita each year. Also, males are generally the biggest consumers of alcohol and suffer most from alcohol poisoning and other problems related to this substance. On the other hand, a pattern of use started to appear in the 1990s that was different to the previous decade and is more closely related to its use in Central Europe. We are referring to a more intensive use, centred around leisure and the weekend, outside of the family setting and starting at an earlier age. The female presence in this type of consumption has been increasing, especially among adolescents.

Traditionally the public use of alcohol centred on males, while any type of consumption by women took place mainly in a private or domestic setting. Nevertheless, the greater possibilities of social participation for many social groups, including women, and the social acceptance of alcohol, for which a strong tradition exists in our country, has eliminated or reduced the stereotypes and prejudices that women suffered for this type of consumption. In Table 17.1, we have collated the percentages of alcohol use for men and women in the last 12 months from the two main surveys, as this is the most stable measurement, Survey of the General Directorate

<sup>&</sup>lt;sup>1</sup>In the surveys, drug use is associated with a temporal frequency: use in the last month, use in the last year and use at some point in one's life or so-called lifetime prevalence. In this work we will look at annual frequency as this data is available for use in various works.

<sup>&</sup>lt;sup>2</sup>Various sources and approximative data are available for estimating the problems associated with drugs and drug dependency. In this case, we will use an indirect indicator, the request for treatment from SEIT, the Government System of Information on Drug Addicts of Spain's National Drug Strategy (PNsD). We understand that a drug user that requests treatment does so because she/he has a problem with the use of one or more psychotropic substances. We are aware of the limitations of this indicator, as not all the people who use drugs and have problems with drugs, or feel dependent upon them, seek treatment.

of the National Drug Strategy (DGPNsD) and Government Survey on the Use of Drugs in Secondary Education (ESTUDES). The annual prevalence of alcohol use is higher among men than women, except in schools, where it is slightly higher among girls than boys.

The male percentages are also higher than those of females for excessive alcohol consumption. The consumption of five or more alcoholic drinks at a single event (binge drinking) is higher among males, whose pattern of alcohol consumption is of a higher intensity and frequency than that of women. In this sense, the Spanish data is no different to the European context [12]. Among schoolgoers, there are slightly more binge drinkers among girls, reversing the relationship that occurs in the general population. It has been observed that, as age increases, alcohol consumption decreases, becoming more moderate [13] (Table 17.1).

As for tobacco use, as Table 17.2 reveals, it is the adult males who smoke most in general terms, while in other age groups, we can find a certain equality between the sexes. On the other hand, schoolgirls smoke more than schoolboys, with significant differences between both. It is possible that the smoking of tobacco has been

**Table 17.1** Alcohol consumption in the last 12 months (DGPNsD)

| Ages (15-64 years) <sup>a</sup>    | Males % | Females % |
|------------------------------------|---------|-----------|
| 1997                               | 86.4    | 70.5      |
| 1999                               | 83.2    | 67.2      |
| 2001                               | 85.2    | 70.9      |
| 2003                               | 84.5    | 68.4      |
| 2005                               | 84.0    | 69.2      |
| 2007                               | 80.4    | 66.4      |
| 2009                               | 84.4    | 72.7      |
| 2011                               | 83.2    | 69.9      |
| 2013                               | 83.2    | 73.4      |
| 2015                               | 82.9    | 72.1      |
| Binge drinkers 2015 <sup>b</sup>   | 35.5    | 24.7      |
| ESTUDES (14–18 years) <sup>c</sup> | Males % | Females % |
| 1994                               | 82.4    | 82.7      |
| 1996                               | 82.3    | 82.5      |
| 1998                               | 83.0    | 84.5      |
| 2000                               | 77.3    | 77.3      |
| 2002                               | 74.9    | 76.3      |
| 2004                               | 86.6    | 81.5      |
| 2006                               | 73.4    | 76.3      |
| 2008                               | 71.5    | 74.2      |
| 2010                               | 73.3    | 73.8      |
| 2012                               | 80.9    | 82.9      |
| 2014                               | 75.3    | 78.2      |
| Binge drinkers 2014                | 41.5    | 43.7      |

<sup>&</sup>lt;sup>a</sup>DGPNSD [9], p. 44

<sup>&</sup>lt;sup>b</sup>The age group of 20–24 years, which is the one that shows the highest prevalence

<sup>&</sup>lt;sup>c</sup>DGPNSD [10, 11], p. 32

**Table 17.2** Tobacco use in the last 12 months (DGPNsD)

| Ages (15–64 years) <sup>a</sup>    | Males % | Females % |
|------------------------------------|---------|-----------|
| 1997                               | 55.0    | 38.7      |
| 1999                               | 50.3    | 39.2      |
| 2001                               | 51.5    | 40.5      |
| 2003                               | 53.0    | 42.6      |
| 2005                               | 47.2    | 37.5      |
| 2007                               | 46.0    | 37.6      |
| 2009                               | 48.4    | 37.0      |
| 2011                               | 44.2    | 36.0      |
| 2013                               | 44.2    | 37.2      |
| 2015                               | 44.4    | 36.0      |
| Daily 2009                         | 36.2    | 27.2      |
| ESTUDES (14–18 years) <sup>b</sup> | Males % | Females % |
| 2006                               | 30.2    | 37.5      |
| 2008                               | 36.0    | 40.1      |
| 2010                               | 28.1    | 36.4      |
| 2012                               | 33.1    | 37.5      |
| 2014                               | 29.6    | 33.2      |
| Daily 2014                         | 8.7     | 9.1       |

<sup>a</sup>DGPNSD [9], p. 44 <sup>b</sup>DGPNSD [10, 11], p. 32

influenced by transition from junior school to secondary school, as the age for this has lowered with its consequent effects on the rites of passage and cultural meanings associated with tobacco use [14]

That female schoolgoers drink and smoke more than their male counterparts may be related to various factors: first, female adolescents today share the same spaces and participate in the same leisure rites as their male counterparts. In the previous decades, the leisure environments and times were different for both sexes, and the acceptance of women's incorporation in all social settings and scenes has been gradually increasing. Second, there are few studies that approach the relationship between female tobacco and alcohol use and advertising in detail, although there is no doubt that it has a strong impact on adolescents. For example, women and adolescents are major users of the light cigarettes, and the tobacco companies are aware of this fact, incorporating the female image into their advertising campaigns. In the same way, alcohol advertising is associated with images of its social and public use, in which women are highly represented. In other words, the slogan of one alcoholic drink that says "it's a man's thing" is no longer an advertising device, as it would exclude female adolescents and young girls, who are important customers for the alcohol industry. Three, legal or illegal drugs can be a substitute or inhibitor for food consumption, as are alcohol, tobacco or psychotropic substances, leading to lower food consumption and therefore becoming a means of weight control [15, 16]. The image of the female body is an important advertising device, as well as for establishing standards of identification. Four, it is likely that female adolescents

and girls find themselves in a dilemma regarding a conflict of roles: the traditional female role models are not relevant to the new generations in which gender roles are being redefined. Finally, drugs, as we will subsequently discuss, are a source of pleasure, fun and a search for new sensations, which are motivations not previously associated with women [17].

# 17.2.2 Psychotropic Drug Use

When we talk of psychotropic drugs, we are referring to a series of pharmaceutical products that are used for a wide range of mental health disorders or illnesses, ranging from stress to personality disorders. In our explanation of this pattern of use, we will focus on those drugs that are used to treat anxiety, stress or other psychological illnesses, such as tranquillisers and sedative hypnotics.

We find two types of psychotropic drug use in the general population: firstly, that prescribed by GPs or mental healthcare doctors as a treatment for some psychological disorders or illnesses and, secondly, personal use without medical prescription for similar reasons or circumstances. In both cases, women are more predominant than men.

In a study about the use of psychotropic substances among women [18, 19], it became evident that women are prescribed with psychotropic drugs twice as much as men when they attend GPs or mental healthcare services. Alongside gender, age is another key variable. The prescription of psychotropic drugs to women is related to a series of characteristics:

- More women than men attend health consultations in which they discuss their illnesses. In other words, they are frequent attenders, meaning they are more likely to be medicated.
- Psychiatric morbidity associated with women oscillates between 20 and 34% compared to males for whom the percentages vary between 8 and 22%.
- A higher number of women are diagnosed for anxiety and depressive disorders, while personality and substance abuse disorders prevail among males. In other words, more anxiety, depression and insomnia problems are diagnosed in women than men.
- Around 50% of patients who visit GPs have a psychosocial-related query, and this is higher among women than men.
- There is a tendency to treat as illnesses and medicate those disorders that are associated with the various life stages of women (premenstrual syndrome, postnatal depression, menopause, etc.). In other words, the tendency is to classify a female's subjectivity as pathological when its origin lies in the specific biological characteristics of the woman's body.
- Many psychological illnesses that are treated with psychotropic drugs are related to the development of the women's gender roles, these being the origin or cause of their illnesses, and which lead to the medication or prescription of psychotropic drugs.

As Goudsmit [20] suggested from a female-centred perspective, there is a supposition among medical professionals that women exaggerate their complaints and express their illnesses externally, thus generating stereotypes of women as hypochondriacs. Any errors or gender biases in the diagnosis lead to two outcomes: on the one hand, no other factors that may be causing the woman's illness are reviewed or investigated, with important repercussions on women's health; and on the other hand, as we have already said, the medication of women's psychosocial illnesses, not considering alternative treatments when the source is the living conditions or social situations.

The medication or self-medication processes for psychotropic substances are not recent; we can trace their origins to the 1950s and 1960s when the Spanish people had an extensive healthcare coverage and the healthcare processes were more clearly defined in the medical community. Together with this situation, the growth and advance of the drug industry put numerous products available on the market for mitigating the illnesses and disorders of the Spanish people.

Thus, surveys carried out in the 1980s were already revealing higher prevalences in the female use of psychotropic drugs [21]. We might say that these concern the psychotropic substances most used in the last 40 years, mainly by women and about which there are very few single-subject studies. It may be that the secondary role given to women's illnesses, how they are deemed to be of little severity and women's disorders being deemed psychological issues, has led us to ignore one of the biggest uses of psychotropic drugs in Spain.

We have extracted data about the use of tranquillisers and hypnotics without medical prescription from the two PNsD surveys, which we show in Table 17.3.

The differences found in the PNsD's home-based surveys are similar between sexes, but for schoolgoers, again, the percentages are higher among girls.

The survey on drug use among the female population carried out in 2000 by EDIS for the Women's Institute of Spain (Institute de la Mujer de España) indicated that users of tranquillisers were 35 years and over, with a low level of education,

**Table 17.3** Use of psychotropic drugs without prescription in the last 12 months (DGPNsD)

| Ages (15-64 years) <sup>a</sup>    | Males % | Females % |
|------------------------------------|---------|-----------|
| 2005                               | 1.1     | 1.3       |
| 2007                               | 1.2     | 1.4       |
| 2009                               | 1.9     | 1.9       |
| 2011                               | 1.1     | 1.2       |
| 2013                               | 1.1     | 1.3       |
| 2015                               | 1.6     | 2.9       |
| ESTUDES (14-18 years) <sup>b</sup> | Males % | Females % |
| 2006                               | 3.7     | 5.8       |
| 2008                               | 4.6     | 6.8       |
| 2010                               | 4.4     | 6.7       |
| 2012                               | 4.4     | 7.3       |
| 2014                               | 3.8     | 6.8       |

<sup>&</sup>lt;sup>a</sup>DGPNSD [9], p. 44

<sup>&</sup>lt;sup>b</sup>DGPNSD [10, 11], p. 32

usually married or widows, being pensioners, housewives, unemployed and professionals of all social classes. For hypnotics, some older ages were recorded, of 50 years and over, these being separated women and widows, also with a low level of education, professionals, housewives and pensioners. These characteristics tally with those recorded in other studies [19].

## 17.2.2.1 Reasons for and Circumstances of Use

The reasons for taking psychotropic drugs are essentially related, as we have previously mentioned, to psychosocial disorders experienced by women and that may be different depending on the moment or stage of their life they are in. Thus, stress faced with entering the job market and professional development, together with a lack of female role models to replace the traditional ones may be a triggering factor among the younger women; an overload of work outside and inside the home, playing the carer and mother role, plus other social demands that hinge on them may be the cause of disorders among middle-aged women; finally, their traditional role as housewives and the loneliness they faced when their children leave home may lie behind the illnesses and disorders of older women [19]. Ultimately, the conflict of gender roles, the absence of new female role models and the lack of public acknowledgement of the traditional roles played contribute towards the dissatisfaction, illnesses and conflicts that women experience and that they mitigate with psychotropic drugs, whether self-medicated or by prescription.

Thus, the work of EDIS, the Sociological Research Team, clearly indicated how women acquire psychotropic substances from medical professionals or family members. The guidelines for self-care at home and the current self-medication processes lead to the transmission of knowledge about pharmaceutical products for treating various ailments among members of the family group, for example, a female transmission from mother to daughter. Therefore, the doctor was specified as the source for obtaining tranquillisers and hypnotics by the female group that EDIS studied (96%), but the PNsD surveys revealed how it is not difficult for women and schoolgoers to receive or access these pharmaceutical products.

Some risk factors have been related to the use of psychotropic drugs among women [19, 22]. The following can be mentioned among them: the double working day, as a result of not only having a job but also responsibilities in and out of the home, financial insecurity, conflicts with partners, stress, personal insecurity and dissatisfaction, work conditions and future expectations, the care of sick older and younger family members that falls upon the women, the crisis of identity in the balance of the gender roles played or situations of dependency and subordination to the husband, not forgetting the relationship between the methods learnt for dealing with conflict in gender socialisation and the use of psychotropic drugs [23, 24].

Ultimately, women are the biggest users of psychotropic drugs, via both medical prescriptions and self-medication, and this use is greatly linked to the gender stereotypes projected around female health by both the prescribers and the rest of society [18].

## 17.2.3 Opiate Use

The use of opiates we are referring to in this point will focus on heroin, bearing in mind that the users of this substance are usually multiple substance users. Other opiates such as methadone or morphine are mainly used in a therapeutic context, without ruling out that these may be subject to different uses.

The prevalence and incidence of heroin use has been dropping over the last decades. The same does not apply to requests for the treatment of dependency on illegal drugs which, as we will see later, has a bigger presence, and in recent years, it is taken in combination with cocaine and other drugs.

Since it erupted on the national scene and its subsequent expansion in the late 1970s, heroin use has been concentrated among men, with women users being the minority, especially in the early days [5, 6]. The first groups of users of this substance determined its pattern of use, partly imported from other countries where its use previously began and spread. Afterwards, some changes were observed to this pattern of use which were related to new social circumstances, such as AIDS, the type of heroin on the black market or the social representation of its compulsive users.

#### 17.2.3.1 Data on Use

Before heroin use spread, the data we have on the use of opiates is scarce, disperse and hardly accurate. However, some works [25–28] have indicated that heroin use was preceded by the use of morphine. According to the cases analysed by González Duro [25], this concerned middle-aged women, who started taking morphine by medical prescription or who were related to medical professionals. They were women from a well-off social class, whose intravenous use was integrated, concealed, self-controlled and not socially relevant. The censuses of morphine addicts treated and supplied with morphine during the dictatorship era also revealed similar characteristics. This high feminine presence in the use of morphine greatly contrasted with the subsequent use of heroin in which women would be the minority. We will most probably find the reasons behind this if we compare the two sociocultural contexts and analyse the woman's role in each.

The prevalence of heroin use in the surveys on this subject show very small percentages compared with other illegal drugs. This situation is evident in all the surveys, from the first to the current ones. Thus, quoting one of the surveys from the 1980s, by the Spanish General Directorate of Public Health in 1984 [21, p. 175], 0.9% of people had taken heroin in the last year (1.6% of the men and 0.3% of women). In the home-based surveys on drugs from 1995 to 2009 by the PNsD, we also observe very low prevalences, between 0.1 and 0.8%, which continue to drop among both men and women (Table 17.4).

The data obtained from the surveys in the last two decades does not reflect the impact of heroin use on Spanish society, especially for the female users of this substance. Heroin and its use have triggered a drug crisis in some Western societies [29], changing the relationship and view of psychotropic substances compared to the previous period.

**Table 17.4** Use of heroin in the last 12 months (DGPNsD)

| Ages (15-64 years) <sup>a</sup> | Males % | Females % |
|---------------------------------|---------|-----------|
| 1995                            | 0.8     | 0.3       |
| 1997                            | 0.4     | 0.1       |
| 1999                            | 0.2     | 0.0       |
| 2001                            | 0.2     | 0.0       |
| 2003                            | 0.2     | 0.1       |
| 2005                            | 0.2     | 0.1       |
| 2007                            | 0.1     | 0.0       |
| 2009                            | 0.1     | 0.0       |
| 2011                            | 0.2     | 0.0       |
| 2013                            | 0.1     | 0.0       |
| 2015                            | 02      | 0.0       |
| ESTUDES (14-18 years)b          | Males % | Females % |
| 1994                            | 0.5     | 0.2       |
| 1996                            | 0.6     | 0.2       |
| 1998                            | 0.8     | 0.5       |
| 2000                            | 0.7     | 0.1       |
| 2002                            | 0.4     | 0.2       |
| 2004                            | 0.8     | 0.1       |
| 2006                            | 1.2     | 0.3       |
| 2008                            | 1.1     | 0.4       |
| 2010                            | 0.9     | 0.3       |
|                                 | 1.1     | 0.4       |
| 2012                            | 1.1     | 0.4       |

<sup>&</sup>lt;sup>a</sup>DGPNSD [9], p. 44

A series of characteristics have been attributed to female heroin users that differ from the pattern of use by males [1, 5, 6]. Of these, we highlight the following:

- The start of heroin use in the first group of users was related to its use by their partner, who was the first to use this substance. In the following group of users, especially those born from the 1970s onwards, the first use of heroin often took place among groups of male and female friends.
- The principal route of administration as this pattern of use spread was intravenous. For the first doses, women tend to behave cautiously, using routes other than intravenous injection, although as their use continues they then change the route of administration. The first times they use heroin, the women demonstrate certain cautious behaviours and previous familiarity with the substance. In other words, the perception of the risk and of putting oneself at risk is usually more moderate than among males. This more cautious behaviour is also reflected in the doses they administer.
- It has been recorded that the women tend to inject themselves after their partners. There seem to be two reasons behind this fact: on the one hand, women have more trouble finding their veins, taking longer to administer the drug than the males. The men are faster and find it easier to inject as their veins are more

<sup>&</sup>lt;sup>b</sup>DGPNSD [10, 11], p. 32

protruding and visible. On the other hand, women tend to share and delegate the first turns to other people in their family setting, as happens with food, in addition to the power relations that exist within the couple's relationship, which influence the method of administration.

- Women tend to use drugs for the first time in a private or discreet setting, outside
  of the public sphere, given the stigmatisation already associated with heroin use
  is exacerbated for female users.
- Although we find some cases of coercion and intimidation concerning the taking of heroin among couples, the women make decisions about starting to use it. The subordinate and passive role assigned to women may be a way of justifying their inclusion in the use and in the rule-breaking behaviours associated with heroin.
- The significance of heroin use for many women is related to the rule-breaking, the conflict of gender roles and a rejection of the traditional roles assigned to women.
- Women tend to conceal their heroin use, given that their acknowledgement of the same generates a higher level of social rejection than among males, putting into question a woman's worth as a colleague, mother and wife.

We mentioned at the start that heroin use currently involves only a minority of the general population and the reasons and circumstances for its use may be different from those of the 1980s when this substance was more widespread and the social and economic conditions were very different. Nevertheless, the reasons for using an illegal substance with such a socially discredited image as heroin are related to rule-breaking, to what is prohibited, to pleasure, to the evasion of personal problems and to peer group cohesion. Thus, women's reasons for taking this substance are no different to those of men, except in some isolated instances where it may have been motivated by a desire to lose weight.<sup>3</sup>

The decline in heroin use is linked to many factors, but of these we can highlight the pejorative images related to its use (overdose, deaths, crimes, marginalisation, etc.), the AIDS epidemic in Europe and Western societies that was very much linked in the early years with the intravenous use of heroin; and above all the decline is linked with the emergence and popularisation of other drugs that are deemed safer and that can be controlled.

The opiates like fentanyl, oxycodone and buprenorphine have recently become generalised in the therapeutic resource of many medical specialities; they are giving rise to phenomena of abuse, dependence and diversion towards the illicit market. These are drugs especially indicated for chronic pain. In Spain, in 2016, 56 people requested treatment for abuse or addiction to fentanyl, estimating 72 people who went to emergency services for an episode related to the use of fentanyl, and we had recorded 13 people who died (during 2008–2016); post-mortem chemical analysis was identified as fentanyl (along with other substances)" [11, p. 2].

<sup>&</sup>lt;sup>3</sup>This reason appeared among younger groups of users who began using heroin in the 1990s, but we repeat again that this incidence involved a minority as there were other drugs with a better social image than heroin that could satisfy this motivation.

# 17.2.4 Recreational Drug Use

The drugs that we look at in this section and that are usually associated with leisure activities are cocaine, ecstasy and cannabis, which although they are not the only drugs found in recreational contexts, they are the principal substances used. We will cover the available epidemiological data for these substances, the reasons for their use, the way they are used and the contexts in which they are used, focusing on women and comparing them with men.

## 17.2.4.1 Data on Use

According to the data we have available from various national and independent surveys, cannabis is the illegal psychotropic substance most highly consumed in Europe and Western societies. Cannabis use generally generates higher percentages among males than females, although in some age groups, the percentage differences are not so high. Thus, the ESTUDES surveys by the National Drug Strategy (PNsD) show a difference of approximately 5% for male and female use of cannabis among schoolgoers. At the ages of 14 and 15, these percentage differences are practically even in both sexes. Thus, in the study by EDIS for the Women's Institute, we find a big difference in cannabis use among schoolgoers (25.3%) and other women (7%). The user profile generated by this study relates to "young women, living in urban areas, with a good level of education, of all social classes, in work, with unconventional ideologies and religious beliefs" [22, p. 133]. Among schoolgoers we can also add that there is a presence of young people from a low social class, who study and work at the same time, and some of them have repeated years of academic study.

The average age for cannabis use among the female population is in the 15- to 17-year age group, according to EDIS' work for the Women's Institute, around 18 years old in the home-based surveys and 15 years for schoolgoers in the PNsD survey. These average starting ages are similar to those for males.

As for cocaine, a high increase in use has occurred in recent years according to the results obtained in the different surveys carried out by the PNsD. It is the second most used illegal psychotropic substance. The differences in percentage between the sexes for annual use, according to the various surveys carried out, are around 2% less for females compared to males, for both schoolgoers and for the rest of the population. Also, the EDIS survey of the female population reveals a much higher annual prevalence among schoolgoers (6.1%) than the PNsD survey in the same year (3%).

The profile of cocaine users in EDIS shows us that these are young women, aged between 14 and 34 years old, and from 17 years of age among schoolgoers; they are single women with a medium and high level of education, employed, students and non-believers and agnostics. Among schoolgoers we also highlight those who work and study, who have repeated an academic year, who live in the north area of along the Mediterranean coast and who spend their leisure time going out with friends to bars, discos and parties, drugs being used in their peer groups [22, p. 139].

The average age for cocaine use in the female population is around 19 years, and among schoolgoers it is 16 (EDIS). This average starting age is higher in the

home-based surveys of the PNsD, at between 20 and 21 years for females (similar to males) and around 15 years for schoolgoers (Table 17.5).

Finally, in the case of ecstasy and similar substances, the differences for annual prevalence by gender are similar to those for cocaine use. Women consume between 1% and 2% less than males. The data obtained in the EDIS survey with regard to women is also similar to the school-based and home-based surveys of the PNsD.

The user profile for ecstasy is also similar to that for cocaine, among other reasons because both substances are mainly used in a recreational context. On the other hand, we may add that what stand out in the female group are the users aged between 14 and 24 years old and, among the schoolgoers, those who are around 13–14 or 17–18 years old.

The average age for starting to use ecstasy is around 19 and 20 years among women, which is 1 year less than for males, in the home-based surveys, and around 15 years for both sexes in the school-based surveys.

|      | Survey ag | ges (15–64 year | rs)a             |         |         |         |
|------|-----------|-----------------|------------------|---------|---------|---------|
|      | Cannabis  |                 | Cocaine          |         | Ecstasy |         |
|      | Males     | Females         | Males            | Females | Males   | Females |
| 1995 | 10.7      | 4.4             | 2.7              | 1.0     | 1.9     | 0.7     |
| 1997 | 10.7      | 4.7             | 2.6              | 0.6     | 1.2     | 0.5     |
| 1999 | 9.6       | 4.3             | 2.3              | 0.8     | 1.2     | 0.5     |
| 2001 | 13.0      | 5.5             | 3.8              | 1.3     | 2.8     | 0.7     |
| 2003 | 16.2      | 6.3             | 4.1              | 1.2     | 2.0     | 0.8     |
| 2005 | 15.7      | 6.6             | 4.6              | 1.3     | 1.8     | 0.6     |
| 2007 | 13.6      | 6.6             | 4.4              | 1.5     | 1.6     | 0.5     |
| 2009 | 14.8      | 6.2             | 4.2              | 1.0     | 1.4     | 0.3     |
| 2011 | 13.6      | 5.5             | 3.6              | 0.9     | 1.0     | 0.4     |
| 2013 | 12.9      | 5.4             | 3.3              | 0.9     | 1.0     | 0.3     |
| 2015 | 13.3      | 5.6             | 2.9              | 0.9     | 0.9     | 0.3     |
|      | Survey ag | ges (14–18 year | (s) <sup>b</sup> | ·       |         |         |
| 1994 | 21.0      | 15.3            | 2.3              | 1.2     | 4.2     | 2.2     |
| 1996 | 25.9      | 21.1            | 3.3              | 2.2     | 4.8     | 3.5     |
| 1998 | 28.2      | 23.5            | 5.4              | 3.6     | 2.9     | 2.1     |
| 2000 | 32.2      | 25.2            | 6.4              | 3.1     | 6.4     | 3.9     |
| 2002 | 36.2      | 29.8            | 7.5              | 5.1     | 4.7     | 3.8     |
| 2004 | 39.4      | 33.7            | 9.4              | 5.1     | 3.3     | 1.9     |
| 2006 | 31.6      | 28.2            | 5.2              | 3.1     | 3.3     | 1.6     |
| 2008 | 33.5      | 27.5            | 4.9              | 2.4     | 2.6     | 1.3     |
| 2010 | 28.2      | 24.7            | 3.3              | 1.8     | 2.2     | 1.2     |
| 2012 | 29.7      | 23.3            | 3.4              | 1.6     | 3.0     | 1.4     |
| 2014 | 28.0      | 23.0            | 3.3              | 2.2     | 1.2     | 0.6     |

<sup>&</sup>lt;sup>a</sup>DGPNSD [9], p. 44

<sup>&</sup>lt;sup>b</sup>DGPNSD [10, 11], p. 32

Now that we have presented epidemiological data about male and female use that is most available, our questions turn to the reasons for the use, the contexts and forms of use among women and the differences compared to males.

## 17.2.4.2 Reasons and Circumstances for Use

The social and public participation of women, as well as their legal equality, has been increasing in Spain since the change to democracy. Although the Spanish Constitution of 1978 already established more possibilities for participation than under the previous regime, it took longer for social customs and norms to be assimilated and for profound changes to occur in the roles assigned to each gender. Thus, few women engaged in recreational drug use until the 1990s for various reasons [16].

Firstly, the pattern of recreational drug use became more popular and widespread in the 1990s, even though it was established in the previous decades. Recreational and leisure activities, especially night-time ones, have become an important concept for young people, in which young women are accepted and integrated, possibilities that their mothers and grandmothers could not have experienced.

Secondly, drug use for reasons related to pleasure, fun and rule-breaking had existed in the male but not the female domain, and the latter was not tolerated until the 1990s. The changes in how leisure time was spent, sexual liberation and the opening of social relations between both sexes, as well as the social tolerance towards some drugs compared to others, have been changing over the last 10 years.

Thirdly, some psychostimulants were substances traditionally prescribed in slimming programmes and were also easy to access in the pharmacies during the decades of the dictatorship, as were amphetamines [25]. Cocaine and ecstasy are slimming substances and allow users to preserve a good physical image. Although this is not the principal reason for use, it is considered to be a good reason for maintaining its occasional use [15].

Fourthly, the transition from positions of dependency or subordination to males to more independent and autonomous situations has generated a conflict of roles among women, on the one hand, due to a lack of new female role models with which they may identify that are not based on the traditional roles of mother, wife and carer or on male styles. On the other hand, the possibility of participating in all these spheres or environments from which women had been prohibited has opened up a new space for conquest and equal rights. Certainly, leaving behind the seclusion of the home and domestic sphere to which they have been subject to then participate in all the social environments entails its risks and benefits for women.

It has been suggested that women participate more in the use of illegal drugs than in previous eras as a symbol of equality and liberation, but wouldn't it be the opposite? In the historic moments in which we live, do women still not have the same opportunities as men? Could this be related to a form of rebellion, nonconformism and a transgression of social roles that has yet to occur?

If we look at what has traditionally been valued in women, such as their behaviour of self-control, security and protection of others, all these related to their traditional roles, the use of psychotropic substances signifies a certain rebellion against

these behaviours. Drug use offers an opportunity for satisfying curiosity, pleasure, seeking new sensations, fun and integration in peer groups.

# 17.2.5 Problematic Uses of Psychotropic Substances

Approaching the problematic uses of legal and illegal psychotropic substances presents many methodological problems, especially if we want to have exhaustive data about them. Thus, we have some indirect indicators prepared by the PNsD in 1987, the SEIT (Government System of Information on Drug Addicts). Perhaps the treatment indicator offers us the best coverage, although it is certain that not all the people who exhibit a dependency on drugs attend the care systems, as an undetermined percentage manage to recover naturally without professional support.

As we can see in Table 17.6, we present data about almost all the substances we have dealt with in the 7 years of this project and the last years that this data has been published. The demand for treatment of alcohol dependency is not recorded in SEIT, among other reasons because the drug dependency care programmes have only recently incorporated this treatment, as other channels and mechanisms existed and continue to exist for this care, making it difficult for us to supply accurate data. It is also possible that the demand for treatment for psychotropic substance dependency is underestimated in this indicator. In all the substances we show, the principal clients of the treatment programmes are male.

According to the above data, we find more women requesting treatment (according to the higher percentages of substances) for psychotropic drugs, ecstasy and similar, heroin, cocaine and cannabis. The prevalences of psychotropic substances analysed in the female group would be (in line with the higher percentages obtained) psychotropic drugs, cannabis, cocaine, ecstasy and heroin, a sequence that is different for males. As a general rule, requests for treatment in the first years are mainly for cocaine [9, 11], cannabis (21%) and opioids (16.2%). Women account for no more than 20% of the requests for care due to these substances. Why are less women demanding treatment for dependence on psychotropic substances?

Various hypotheses have been put forward concerning the low representation of women in the drug dependency care programmes [5, 27]. Given that the prevalence of females in illegal drug use is much lower than that of males, their demand for treatment is logically lower as well. But it may also be that the pattern of use among women is very different to that of males and they do not require treatment, it being a small section of women that would require professional help. As previously mentioned, female use may be more secretive, moderate and sustained without generating problems; in other words, it leads less frequently to compulsive use. It may also be related to the roles they traditionally played of displaying greater self-control and security, so that once their behaviour becomes compulsive, they have a greater capacity to stop taking drugs without professional care or treatment. In other words,

<sup>&</sup>lt;sup>4</sup>Government System of Information on Drug Addicts. There are three indirect indicators: treatment indicator, emergency indicator and the indicator of mortality related to illegal drugs.

**Table 17.6** Request for treatment per principal substance that motivated the request (SEIT 1996–2009, PNSD<sup>a</sup>)

|      | Heroin |         | Cocaine |         | Ecstasy |         | Cannabis |         | Psychotrop | Psychotropic substances <sup>b</sup> |
|------|--------|---------|---------|---------|---------|---------|----------|---------|------------|--------------------------------------|
|      | Males  | Females | Males   | Females | Males   | Females | Males    | Females | Males      | Females                              |
| 1996 | 84.5   | 15.5    | 86.0    | 14.0    | 80.5    | 19.5    | 88.8     | 11.2    | 54.7       | 45.3                                 |
| 1997 | 84.3   | 15.7    | 86.0    | 14.0    | 75.1    | 24.9    | 90.3     | 7.6     | 55.7       | 44.3                                 |
| 1998 | 84.4   | 15.6    | 86.7    | 13.3    | 80.5    | 19.5    | 88.9     | 11.1    | 57.7       | 42.3                                 |
| 6661 | 84.8   | 15.2    | 0.98    | 14.0    | 82.8    | 17.2    | 89.2     | 10.8    | 57.9       | 42.1                                 |
| 2000 | 84.3   | 15.7    | 87.5    | 12.5    | 83.1    | 16.9    | 90.1     | 6.6     | 9.09       | 39.4                                 |
| 2001 | 84.4   | 15.6    | 9.98    | 13.4    | 9.08    | 19.4    | 90.1     | 6.6     | 56.0       | 44.0                                 |
| 2002 | 84.0   | 16.0    | 87.2    | 12.8    | 80.8    | 19.2    | 89.2     | 10.8    | 6.09       | 39.1                                 |
| 2005 | 84.1   | 15.9    | 85.9    | 14.1    | 81.1    | 18.9    | 84.7     | 15.3    | 6.09       | 39.1                                 |
| 5009 | 84.8   | 15.2    | 85.8    | 14.2    | 87.4    | 12.6    | 86.3     | 13.7    | 6.09       | 39.1                                 |
| 2012 | 83.8   | 16.2    | 85.8    | 14.2    | 85.8    | 14.2    | 85.4     | 14.6    | 60.4       | 39.6                                 |
| 2014 | 85.7   | 14.3    | 85.7    | 14.3    | 86.5    | 13.5    | 84.2     | 15.8    | 61.8       | 38.2                                 |
| 2015 | 84.9   | 15.1    | 85.7    | 14.3    | 83.2    | 16.8    | 84.2     | 15.8    | 56.3       | 43.7                                 |

<sup>a</sup>As of 2002, the data is not published annually <sup>b</sup>In 1996 and 1997 the data refers to hypnotics and sedatives and in 2002 to hypnotics and benzodiazepines

they recover naturally from situations of dependency. In these latter aspects, the greater social exclusion and stigmatisation of illegal drug use by women may inhibit their acquisition of a drug dependency or their attendance for treatment. Another aspect that has also been mentioned with regard to women is that they leave the environments in which drugs are used earlier as they acquire responsibilities in the family before males [15]. But it has also been suggested that it is precisely because males are the majority in the treatment programmes that women do not attend them, due to their male-centred orientation. They would not feel comfortable or find the services or care they require. There are currently very few programmes that take women's needs into account and that have put together resources or strategies to cover them.

It is very likely that these hypotheses we are putting forward explain the lower representation of females, and a more in-depth investigation into gender and female drug use would be necessary to confirm them.

# 17.3 A Gender Approach in Drug Policies

Drug use is conditioned by the gender norms and the female and male role models that defined the social acceptance of drug use and related behaviours for each sex [30]. The traditional gender role models have influenced the adoption of certain types of drug use among women that were previously deemed to "belong to men". This has been the case with alcohol and tobacco and above all with illegal substances, associated with risk and rule-breaking. Also, the sexist stereotypes linked to the traditional female roles have contributed to the rise of other types of drug use that are "compatible" with female needs and problems, specifically the use of psychotropic drugs [31], and have "protected" women from tobacco and alcohol. Nevertheless, the "protective" function of the traditional gender roles is becoming less and less effective in the context of women's emancipation, which opens up interesting routes of inquiry around the adoption of certain types of drug use by women.

If we accept the analysis of policies to curb drug supplies, despite the long history of studies and publications about gender and development cooperation policies, few applications have been made under this approach to analyse the alternative development policies aimed at replacing the cultivation of plants prohibited by other agricultural products. Nor are there any exhaustive analyses of policies to control drug traffic that include a gender approach. The few studies that exist in this regard show that neither the public bodies nor consumer rights agencies pay sufficient attention in their discourses to the differences in the patterns of use and sociocultural context between men and women [32].

Both the guidelines for drug use and the gender roles related to the same vary according to the user's gender. In recent decades, surveys reveal an increase in the use of legally regulated substances such as tobacco, alcohol and tranquillisers among women, or of socially accepted substances such as cannabis, while the use of prohibited drugs continues to be mainly masculine.

The core approach of the policies to curb drug demand in the European Union appears to focus on prohibited drugs. The EU Drugs Action Plan for 2009–2012 translated the general aims and priorities of the EU Drugs Strategy (2005–2012) into specific actions, with indicators that measure progress. The first paragraph of the said Plan states that "illicit drugs are a major concern for the citizens of Europe, a major threat to the security and health of European society and a threat to living conditions worldwide" [33]. But how are the risk and risk factors defined? How do you measure the damage caused by drug use? In Western culture, accounts of addictions focus mainly on the substance, the "drug", omitting other explanations such as relocation or the financial crisis or cultural practices that induce the habit among many people in social contexts where the drug proliferates.

Insofar as the discourses about official drug policy define the risks that derive from using certain substances, in the collective imagination the "drug" becomes an element capable of transforming the users, removing any other desire or eroding the values of the people and the community. As in the social imagination, cultural values are incorporated into public policies in ways that do not always give rise to practical, ethical or fair policies.

Public policies are a central instrument in the organisation of contemporary societies, to the point of categorising people as "citizens", "delinquents", "ill persons" or "deviants" without those who are the object of such policies having any control over or being aware of the process for drafting the same. Thus, drug use is managed using risk-based technologies that convert the users into delinquents or ill people.

For women, the construction of their image with regard to drugs is conditioned by gender roles, so that a collective imagination is produced which then circulates and takes shape, especially in public policies, about the significance or women and drugs, based on sex, gender, ethnic background and class. The rights of women depend on the extent to which they fulfil their responsibilities as workers, consumers and carers, buying their independence at the price of good behaviour and social conformity [34]. Thus, social stigma and the threat of withdrawing custody of their children become disciplinary methods of social regulation for effectively governing female drug users.

## 17.4 Conclusion

Social acceptance of drug use is not equal for the male and female users, just as it is not equal for prohibited and legally regulated substances. Women are often affected to a greater extent by social criminalisation (stigmatisation) related to the prohibited substances and the compulsive use thereof. This stigmatisation and the fear of social sanction means that many women do not admit to using prohibited substances and do not access the resources available for people with compulsive use disorders, making them invisible in the statistics and studies.

The vulnerability of women is exacerbated by their invisibility: few resources are allocated to cover the needs of female drug users; there is a shortage of staff trained

on gender matters; treatments begin at a late stage; a growing number of women are imprisoned in men's prisons; few if any women hold responsible positions in drug user associations; etc. Thus, the invisibility that exacerbates their vulnerability results in complete exclusion in some cases. At the same time, the invisibility of female drug users is obvious not only when they are the object of policies but also when they are the subject.

We can foresee that as a gender approach is incorporated into the policy guidelines designed and issued by the various organisations dedicated to drafting drug policies in the European Union, and as these guidelines are effectively applied by the member States, we will be able to obtain clearer information about the problematic uses and the contexts in which drugs are used and about the treatment programmes and the accessibility by all the people who need such programmes, which also cover women's needs, with their strategies and resources.

### References

- 1. Meneses C. Mujer y heroína. Un estudio antropológico de la heroinomanía femenina. Tesis doctoral. Departamento de Antropología y Trabajo Social. Universidad de Granada. 2001.
- 2. Romo N. La mirada de género en el abordaje de los usos y abusos de drogas. Revista Española de Drogodependencias. 2010;3:269–72.
- 3. Inciardi JA, Lockwood D, Pottieger AE. Women and Crack-Cocaine. New York: Macmillan Publishing Company; 1993.
- 4. Reed BG. Drug misuse and dependency in women: the meaning and implications of being considered a special population or minority group. Int J Addict. 1985;20(1):13–62.
- Meneses C. Mujeres y consumo de opiáceos. Una realidad específica. Trastornos Adictivos. 2006;8(4):261–75.
- 6. Meneses C. Invisibilidad y estigmatización del consumo de drogas en las mujeres. In: García-Mina A, Carrasco, Mª José, editors. Diferencias de género en el uso de las drogas. Madrid: Universidad P Comillas; 2006.
- Camí J. Las sustancias: Farmacología. In: Grup Igia y cols, editors. Contextos, Sujetos y Drogas: Manual sobre Drogodependencias. Madrid: Inst. Municipal de Salut Pública-FAD; 2000. p. 159–85.
- 8. WHO. Global status report on alcohol and health 2018. Geneva: World Health Organization; 2018
- DGPNSD. Informe 2016. Alcohol, tabaco y drogas ilegales n España. Madrid: Delegación del Gobierno para el Plan Nacional sobre Drogas (DGPNS). Ministerio de Sanidad, Servicios Sociales e Igualdad; 2017.
- DGPNSD. Informe 2017. Alcohol, tabaco y drogas ilegales n España. Madrid: Delegación del Gobierno para el Plan Nacional sobre Drogas (DGPNS). Ministerio de Sanidad, Servicios Sociales e Igualdad; 2018.
- 11. DGPNSD. Alerta sobre derivados del fentanilo en consumidores de heroína. Madrid. Delegación del Gobierno para el Plan Nacional sobre Drogas (DGPNS). Ministerio de Sanidad, Servicios Sociales e Igualdad. 2018. (Consulta 9 -november-2018) http://www.pnsd.mscbs.gob.es/profesionales/sistemasAlerta/pdf/ALERTA\_DERIVADOS\_FENTANILO\_CONSUMIDORES\_HEROINA\_29052018\_def.pdf.
- 12. Kuntsche E, Rehm J, Gmel G. Characteristic of binge drinking in Europe. Soc Sci Med. 2004;59:113–27.
- 13. Wilsnack RW, Vogeltanz ND, Wilsnack SC, Harris TR. Gender differences in alcohol consumption and adverse drinking consequences: cross-cultural patterns. Addiction. 2000;95(2):251–65.

- 14. Meneses C, Charro B. Is a gender differential intervention necessary in the prevention of adolescent drug use? Revista de Psiquiatría y Salud Mental. 2014;7(1):5–12.
- 15. Romo N. Cultura del baile y riesgo: la influencia del género en los nuevos consumos de drogas de síntesis. Granada. Tesis doctoral. Departamento de Antropología y Trabajo Social. Universidad de Granada. 2001.
- Romo N. Técno y Baile. Mitos y realidades de las diferencias de género. Revista de Estudios de Juventud. 2004;64:111–6.
- 17. Keane H. Intoxication, harm and pleasure: an analysis of the Australian National Alcohol Strategy. Critical Public Health. 2009;19(2):135–42.
- Markez I, Póo M, Romo N, Meneses C, Gil E, Vega A. Mujeres y psicofármacos: la investigación en atención primaria. Revista de la Asociación Española de Neuropsiquiatría. 2004;XXIV(91):39–61.
- 19. Romo N, Vega A, Meneses C, Gil E, Markez I, Póo M. Sobre el malestar y la prescripción: un estudio sobre los usos de psicofármacos por las mujeres. Revista Española de Drogodependencias. 2003;28(4):372–9.
- Goudsmit E. ¡Todo es mental! Puntos de vista estereotípicos y la psicologización de las enfermedades de la mujer, en Wilkinson S y Kitznger C. Mujer y Salud. Una perspectiva feminista. Barcelona: Paidós; 1996.
- Comas D. El uso de drogas en la Juventud. Madrid: Ministerio de Cultura. Instituto de la Juventud; 1985.
- EDIS. Consumo de alcohol y otras drogas en el colectivo femenino. Madrid: Instituto de la Mujer; 2000.
- 23. Burin M. Mujeres al borde de un ataque de psicofármacos [en línea]. 2000. http://old.clarin.com/diario/2000/08/31/o-02901.htm.
- 24. Levinton ND. El superyo femenino. Maristarán. 2002;14:13-22.
- 25. González Duro E. Consumo de Drogas en España. Madrid: Villalar; 1979.
- Meneses C. De la morfina a la heroína. El uso de drogas en la Juventud. Miscelánea Comillas. 2002;60(116):217–43.
- 27. Meneses C. ¿Una atención específica para mujeres drogodependientes? Revista Proyecto. 2002;43:5–9.
- Usó Arnal JC. Drogas y Cultura de Masas. (España 1855–1995). Tesis doctoral. Universidad Complutense de Madrid; 1995.
- 29. Gamella J. Heroína en España (1977-1996). Claves de Razón Práctica. 1997;72:20-30.
- 30. Jiménez ML, Guzmán R. Género y usos de drogas: dimensiones de análisis e intersección con otros ejes de desigualdad. In: Diferencias invisibles: género, drogas y políticas públicas. Oñati Socio-Legal Series, vol. 2, no. 6; 2012.
- 31. Romo N, Gil E. Género y uso de drogas. De la ilegalidad a la legalidad para enfrentar el malestar. Trastornos Adictivos. 2006;8(4):243–50.
- 32. Arana X, Markez I, Montañés V. Introducción al enfoque de género en las políticas europeas de drogas. In: Diferencias invisibles: género, drogas y políticas públicas. Oñati Socio-Legal Series, vol. 2, no. 6; 2012.
- 33. Consejo de la Unión Europea. Plan de Acción de la Unión Europea en materia de lucha contra la droga 2009–2012, Consejo de la Unión Europea, 2008/C 326/09, 20/12/2008. 2008.
- 34. Charro B, Meneses C, del Cerro P. Motivos para el consumo de drogas legales y su relación con la salud en los adolescentes madrileños. Revista Española de Drogodependencias. 2012;37(3):257–68.



# **Everything You Always Wanted to Know About Sex (and Gender) in Psychosis But Were Afraid to Ask: A Narrative Review**

18

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#### **Abstract**

In Chap. 6 I argue for a sex- and gender-based analysis (SGBA) to improve the science of psychosis research, describing how to conduct SGBA. I extend that argument in this chapter by reviewing what we currently know about sex and gender in psychosis highlighting gaps in our knowledge illustrating how SGBA might fill those gaps. I discuss several ways this can be achieved, such as through clarifying research findings and/or enhancing methodology demonstrating the potential for increasing our understanding of the development, expression, and recovery of psychotic experiences.

## 18.1 Introduction

If they get you to ask the wrong questions, they don't need to worry about your answers. Anonymous (cited in Hare-Mustin & Maracek, 1994, p. 531)

Unfortunately, the title of this chapter is misleading as the reader shall see; there is actually very little we know about gender and much more we could understand about sex regarding their impact on psychosis. As pointed out in Chap. 6, researchers in the psychosis field have, for one reason or another, been 'afraid' or reluctant to ask questions about how the variables of gender, and, to a lesser extent, sex, influence psychosis risk, development, expression, and outcomes for the men and women so diagnosed. This neglect of gender in psychosis is particularly conspicuous with the absence of any psychosis studies included in *Clinical Psychology Review's* recent special issue

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on the impact of sex and gender in mental health [1]. In Chap. 6 I argue for a sex- and gender-based analysis (SGBA) in the psychosis field highlighting the neglect of the multivariables of sex and gender in research and describe SGBA and the relevant constructs. In this chapter, I review the literature briefly outlining research that focusses on sex differences in the schizophrenia field in addition to the few studies that examine gender pointing out how SGBA may have illuminated findings further.

## 18.2 Sex Differences

Much more research in the schizophrenia field has been devoted to sex differences than gender though there are still many unanswered questions, particularly with regard to the underlying mechanisms of these differences [2]. For more extensive reviews on the impact of sex and gender on mental health please see Pineles and colleagues [1] and for reviews on sex differences in schizophrenia please refer to the following [3–12].

## 18.2.1 Prevalence, Incidence, and Onset

In their review of sex differences, Falkenburg and Tracy (2012) note the conflicting epidemiological findings regarding prevalence, incidence, and age of onset of schizophrenia [4]. For example, some authors suggest prevalence is larger among males, and others find no difference between the sexes [2, 4, 11–17]. Several authors attribute these inconsistencies to age limits of samples (women in older age groups are at higher risk; thus samples should include all ages) and diagnostic criteria used (e.g. the narrower the diagnostic criteria used, the more women are excluded from a diagnosis of schizophrenia [3, 18, 19], but when affective or atypical symptoms are included in the diagnostic systems, more women are diagnosed [16]). Iacono and Beiser found incidence rates two to three times higher in men than women regardless of diagnostic criteria used [13]. While incidence rates appear to be more consistent in the literature with a recent meta-analysis by Aleman, Kahn, and Selten in 2003 [20] reporting a mean ratio of male-to-female incidence of 1.42, this has not reflected the lack of sex differences in prevalence reported by two major epidemiological reviews [7, 21] and a welldesigned Finnish population study, one of the largest and most thorough [22]. Interestingly, Susser and Wanderling, using the ten-country WHO cohort, found almost double the annual incidence of non-affective remitting psychosis (NARP) per 10,000 people in women than men in developing countries and about tenfold the incidence for both sexes compared to developed countries [3]. Abel and colleagues [3] note that this finding is surprising considering these cases came from the original ten-country study that found no difference in incidence between developed and developing countries and lower prevalence in developing countries. Some authors have pointed to the doubly high mortality rates (especially from suicide) in men with schizophrenia diagnoses as in women as another factor possibly related to the discrepant prevalence and incidence rates [3, 4, 20]. Small or unrepresentative female samples or unbalanced male/female ratios mostly with an excess of males could also be a factor [16, 17, 23]. Thus, Abel and colleagues emphasize the importance of being aware of the uncertainty of values associated with sex differences in these domains [3].

Falkenburg and Tracy have drawn attention to the fact that even with regard to age of onset, regarded as the most convincing sex difference, inconsistencies are revealed in the current literature [4]. The authors report most studies find an earlier age of onset of 3-4 years for males regardless of confounders such as culture and better socio-occupational functioning in women but cite a study by Chang et al. in Hong Kong in 2011 that failed to find any difference [4, 24]. In one of the largest and most comprehensive epidemiological population-based samples, the National 'Low Prevalence' study from Australia, Morgan and colleagues report no significant sex difference in age of onset except for elevated rates in women after age 40 [12]. They speculate that including treated and untreated cases, people from inpatient and outpatient and public and private settings helped reduce sampling bias in their study. The authors cite several studies that have not found sex differences in age at onset and even some that have reported earlier onset in women [12]. Morgan and colleagues refer to Jablensky and Cole, who, in a reanalysis of the World Health Organization (WHO) ten-country study data, suggested that confounding, especially by marital status (which they propose acts as a protective factor delaying onset in women), may explain the reported differences. Morgan and colleagues indicate that both marital status and familiality (family history of psychosis) confound the association between sex and age at onset in their study [12].

However, interpreting marital status as a 'protective' factor is problematic. Nasser and colleagues argue that the quality of the marital relationship is an important variable [25] drawing attention to other studies that reveal an association of marital status with higher rates of mental illness and underline the impact of other psychosocial stressors such as poverty, homelessness, and victimization that women with psychotic illness are disproportionately exposed to regardless of marital status. Several researchers have suggested that men's higher admission rates may be related to differential gender role expectations such that there is more tolerance for women to be unemployed with increased responsibilities for unpaid work such as the care of others and domestic duties such as housework [26, 27] and marriage may be a related factor in lower admission rates for these reasons.

Conflicting findings with regard to age of onset have also been attributed to differing definitions of 'age of onset' (some definitions refer to age at admission, first treatment, first positive, or first noticeable signs of the disorder) and younger age cut-offs, thus excluding late-onset females and including non-schizophrenic psychoses. Falkenburg and Tracy point out that findings are more consistent regarding onset distribution over time with admixture analyses demonstrating onset for both sexes as nonlinear and typically bimodal or tri-modal for women where onset peaks between age 25 and 30, a smaller one after 45, and some studies reporting a third after age 60 [4].

In a recent review and meta-analysis of the incidence rates over a 60-year period of schizophrenia and other psychoses in England, Kirkbride and colleagues in 2012 found that incidence of psychotic disorders varied strikingly by age, sex, migrant status/ethnicity, and place. The authors indicate that there was broad support for the most consistent findings of sex differences in peak incidences for men and women in addition to the elevated rates reported across several ethnic minority groups [28]. However, their review suggested raised rates for women from ethnic minority groups descendant from the Indian subcontinent.

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# 18.2.2 Phenomenology and Symptomatology

One of the most consistently reported findings of sex differences in symptomatology is that men experience more or worse 'negative symptoms' and women more 'positive symptoms', particularly auditory hallucinations and paranoia or persecutory delusions and affective symptoms [3, 6, 29, 30]. Morgan and colleagues report that women present with more depressive symptoms at entry and throughout illness progression [12]. Other researchers have also reported that women with a schizophrenia diagnosis display higher levels of depression [8, 31] which may be why they are likely to be diagnosed as schizoaffective. The NEMESIS general population study, with a sample of over 7000, also found that men display more negative symptoms (this effect size increases when depression is adjusted for) and women more positive symptoms [30]. However, when adjusting for depression, the authors indicate that the differences in positive symptoms could be accounted for by the overlap with depression [30]. Investigators suggest, as have others [32–34], that the higher levels of depression in women with psychosis may induce higher levels of positive symptoms which may help to explain the discrepant findings between studies with regard to sex differences in positive symptomatology [30]. Cotton and colleagues suggest that higher levels of depressive symptoms in females at service entry may be related to the greater prevalence of sexual abuse histories and mood disorder in women [35]. The NEMESIS authors propose interpreting their findings using current psychological models of symptom formation that emphasize the role of emotional processes in the cognitive biases that may lead to positive symptoms [30].

Al-Issa's review on gender and psychosis found that delusions are more frequent in females than males with one study reporting that the greatest sex differences in delusions occur between ages 40 and 50 when incidence is twice that in females as in males [36]. Similarly, Lucas et al. report, from their sample of 206 female and 196 male hospitalized patients, a significantly higher incidence of delusions in women than men and more variation in terms of content of delusions in women [37]. More recent studies also report an increased incidence of delusions, particularly persecutory delusions in women [3, 6], and more severe paranoia in women [5] particularly in women with older onset than men with older onset [3]. This is an interesting finding in light of Mirowsky and Ross' research linking belief in external control with low socioeconomic status, Mexican heritage, and being female. They found that belief in external control interacts with low current socioeconomic status to produce mistrust, which in turn is the major factor directly associated with paranoia [38]. Women's declining social status with age as well as increased economic insecurity possibly might help explain the increased persecutory delusions that are reported in older women. This would be an interesting area for future research to pursue using SGBA.

In an early psychosis study by Danish investigators, men experienced more severe negative symptoms and a poorer social network and women more severe hallucinations [39]. But in spite of the fact that women functioned better in terms of education, employment, permanent relationships, and independent living, they reported lower self-esteem than the men.

# 18.2.3 Course and Outcome/Recovery

Most studies suggest that socio-occupational functioning (including premorbid) and outcome are better in women including in first-episode samples [2, 3, 5, 16, 29, 40]; but as pointed out previously, marital status is often used as a measure of this type of functioning without consideration of the quality of the marital relationship [25]. Some authors suggest that a better course and outcome for women are related to a later age at onset [3]; however other researchers have found that this superior functioning is not related either to premorbid functioning or age at onset [41].

Women in Morgan and colleagues' study reported having experienced a psychosocial stressor just prior to illness onset significantly more frequently than men [12] consistent with the findings of McGlashan and Bardenstein [31]. This finding has also been reported in other countries [42–48].

As Thorup and colleagues [16] point out, the different course of the disorder for males and females needs more thorough investigation. Future research adopting SGBA, as well as using qualitative or mixed methodologies, might help clarify the sex differences findings reported above particularly those that are discrepant.

## **18.2.4 Summary**

To summarize this overview of sex differences, the most consistent finding seems to be with regard to phenomenology and symptomatology with females experiencing more auditory hallucinations and men greater negative symptoms. Most studies also report a higher incidence of delusions, particularly persecutory and more severe paranoia in women. Sex differences in age of onset distribution over time are also more consistently reported. While incidence rate differences appear to be more consistent in the literature, this is not reflected in prevalence rates, for which a lack of sex difference has been reported by major epidemiological reviews using various measures. Elevated rates have been reported across several ethnic minority groups. It is not clear why incidence rates should differ whereas prevalence rates do not, but various explanations have been put forward. Another frequently reported finding is that women with psychosis present with more depression. In terms of course and outcome, women appear to have superior socio occupational functioning and outcomes in spite of lower self-esteem.

## 18.3 Gender

As noted previously, the role of gender has been severely neglected in the schizophrenia field with the exception of some interesting studies conducted from the 1950s to the early 1980s and one as early as 1934. The majority of the papers reviewed in this section do not test gender constructs empirically but consider gender in the explanation of their results. 458 M. Haarmans

A limitation with regard to many of these studies is that much of the data is collected via chart reviews, case notes, or to a lesser extent structured interviews and gender has not been defined clearly. Further the data has not been explored in terms of individual life history, context, gender relations, or intersections with other social categories such as 'race' or class, with exception of a few earlier studies emphasizing the significance of sociological factors in delusion/hallucination content [37, 49–51]. The reason for this earlier interest in gender and specifically delusional content may be related to the fact that psychodynamic models of mental distress including psychosis were more prevalent at the time and the role of psychiatrists included providing psychotherapy. Furthermore, there was a greater emphasis on phenomenology of psychopathology, a tradition that continues to this day in Germany, albeit with the aim of improving accuracy of diagnosis [46]. It is also a period in history corresponding to the women's movement, where gender roles were beginning to be questioned and were beginning to change. The interest in content and sociocultural factors in psychosis, in particular gender, seemed to begin to wane in the early 1990s corresponding to what some have termed the 'decade of the brain' in which research favoured a biogenetic focus [25].

# 18.3.1 Gender Role/Identity and Psychosis

While there was interest in gender roles and gender identity in schizophrenia several decades ago [50, 52, 53], Nasser and colleagues point out most of the research focusing on gender identity has methodological flaws and was conducted with hospitalized males [25]. By and large, this earlier work was based on an outdated gender identity trait model replaced since with social constructionist models [54–58].

One of the leading theories among this earlier work, proposed by LaTorre [52], is the diathesis-gender-stress model of schizophrenia which identifies gender identity or 'gender role confusion' (defined as less identification with characteristics associated with normative gender roles) as a major psychosocial stressor. LaTorre's vulnerability-gender-stress model is based on an outdated theory. LaTorre theorized that 'faulty gender identity' results from dysfunctional family dynamics such as parental non-involvement or hostility and thus poor same-sex models leading to sex incongruent gender identity [52]. The underlying assumption of this work, as with most of the earlier work on gender and schizophrenia in general, is that the problem lies within the individual's 'impairment' in their ability to incorporate 'normal' gender role norms into one's personality or behaviour. LaTorre does, however, suggest that in the adolescent male, greater 'gender identity uncertainty' is related to Western male role norms that emphasize aggression thus explaining male earlier onset. This idea is more consistent with the gender role strain paradigm described in Chap. 6 of this book.

Al-Issa [36] cites a number of studies that report hospitalized males with a schizophrenia diagnosis tend to exhibit more passivity and withdrawal than nonpsychotic men. Conversely, women are observed to be more active and dominant than their nonclinical counterparts. Several studies are cited in which clinical observations on hospital wards and in psychotherapy have reported that women patients are more sexual and aggressive than men patients. One could question, however, whether these observations are biased due to traditional gender role expectations so

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that women who do not fit stereotyped gender roles are perceived and labelled as 'more sexual and aggressive'. Al-Issa suggests that selection factors may explain these purported sex differences in behaviour such that '...overactive, aggressive females and underactive, withdrawn males are hospitalized more readily than those whose behaviour is socially acceptable' (1982, p. 159). He also questions whether institutionalization itself is responsible for the sex differences observed in hospitalized patients' behaviour. He notes that the aggressive behaviour of women appears to be situation specific, for example, during staff interactions but not observed in interactions of mothers with their infants. Interestingly, Al-Issa describes studies in which women who display 'feminine' behaviour such as 'a feminine pattern of high anxiety' and 'low ego strength' are rewarded by being more likely to be discharged from hospital than if they '...reveal a masculine pattern of low anxiety and high ego strength' (p. 160).

Al-Issa proposes cross-cultural studies reveal how conflicts associated with gender role ideals might be related to the development of schizophrenia in both males and females [36]. This idea is consistent with Pleck's [56] gender role strain paradigm described in Chap. 6. Al-Issa [36] concludes that these findings reflect gender role norms (which by definition may vary according to culture) regarding sexual prescriptions and proscriptions for men and women. He cites Weinstein [59] who, in contrast to Western studies, found that sexual content is not very frequent in the delusions of native women in the Virgin Islands. Weinstein attributed this finding to social expectations and his observation that biological sex does not determine social roles in this culture.

Current gender role theories, such as the gender role strain paradigm and the gender role conflict construct, attribute distress to the individual's perceived discrepancy between actual self and ideal self with regard to gender role norms, in addition to discrimination by others for violating gender role norms. These paradigms contrast with the work of LaTorre and others by locating the problems not within the individual per se but rather within the gender role norms themselves [54, 56, 60]. A critical component of these constructs, as described in Chap. 6, is the idea that harmful psychological consequences result also when individuals *do* conform to gender role norms as described by Pleck's subtype of gender role strain: 'dysfunction strain' or as outcomes of gender role conflict [56, 57].

Nevertheless, some of the findings of earlier research are thought-provoking, particularly those related to problems with body image. These studies found hospitalized patients experience less sexual differentiation than control groups, as measured by projective tests such as the Draw-a-Person (DAP) test and the sexual differentiation scale, which attempt to account for gradations of differentiation, as well as self-report scales such as the Body Parts Satisfaction Test measuring satisfaction or dissatisfaction with body parts [36, 52, 53]. In light of research demonstrating clear links between childhood sexual abuse (CSA) and psychotic experiences [61], these findings are particularly interesting and possibly related to CSA; however, this was not investigated by any of the researchers.

An additional limitation of this early work, as pointed out by Al-Issa [36], is the simplistic conceptualization of gender as a bipolar model opposed to a multidimensional and multifaceted construct. He also criticizes this early work for its lack of

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recognition of the harmful psychological impacts of rigid gender typing and adopting stereotypical gender role norms that could be related to development of schizophrenia.

Sajatovic and colleagues examined 'gender identity' with 49 men and 41 women diagnosed with schizophrenia or schizoaffective disorder and reported that both sexes endorsed tranditional male gender role statements on the Bem Sex Role Inventory (BSRI) to a lower extent than normative expectations for their respective sex [62]. As mentioned in Chap. 6, the BSRI has been criticized as a rather crude measure of gender due to oversimplifying the constructs of masculinity and femininity [54, 63]. Critics argue that the BSRI instead measures personality 'traits', such as instrumentality versus expressiveness, which presumes that masculinity or femininity is located within the individual as opposed to being viewed as socially constructed. Nevertheless, the findings are interesting in light of studies suggesting certain behaviours reinforced as masculinity norms such as sense of agency and assertiveness are associated with better mental health [64–66].

There is also a problem, however, with research relying on only one scale. Adopting the gender role strain paradigm is a more useful and comprehensive model due to its increased level of theoretical sophistication and sensitivity in that it captures the multidimensionality of the gender construct as well as accommodating the dynamism of gender and changing gender roles. Thus we adopted this scale using an SGBA approach to investigate the role of core schema, gender role strain (GRS), and psychosis with a sample of 92 ethnically diverse women, described in more detail in Chap. 7 [67]. Women with psychosis reported higher levels of GRS than women in the nonclinical group. Analyses suggested that the relationship between GRS and symptoms was mediated by negative self- and others schemas (core beliefs), underlining the importance of social context. Another interesting finding was that the ethnic minority women reported greater endorsement of sexual purity ideals. These findings have important implications for gender-responsive interventions that incorporate intersectionality to address multiple social locations.

# 18.3.2 Gender and Psychosis Content/Symptom Expression

Researchers in the schizophrenia field have shown very little interest in investigating psychotic content generally and even less so with regard to sex and/or gender. However, a limited number of studies from several countries have examined sex differences in content of delusional beliefs and, in rare cases, hallucinated voices. These investigators rely primarily on chart review, case report, and, to a lesser extent, semi-structured interview for data collection. Several authors explain results as related to gender role socialization [42–46, 51, 68–70]. However, for many studies, we cannot be certain that the sampling methods such as those for psychosis criteria were sufficiently robust to avoid bias. Studies exploring content of delusions are organized according to country to highlight sociocultural context and similarities and differences among regions.

## 18.3.2.1 **Delusions**

## **Studies from England**

Lucas and colleagues in 1962 [37], predating the recent movement toward advocating psychological formulation over diagnosis [71], based their research on the assumption that '...a patient's symptoms can often more reliably be identified and more meaningfully related to his [sic] social background than can a diagnosis' (p. 748). They examined the content of delusions of inpatients (196 males and 209 females) with a schizophrenia-spectrum disorder diagnosis. Building on previous research [49, 50, 72] that found psychotic content to be related to environmental factors, Lucas and colleagues investigated whether delusional content could be related in a meaningful way to sociocultural variables. In terms of sex differences, they report that significantly more women than men experienced delusions, and women had a much higher incidence of sexual delusions than men, which occurred more in the married than single participants. In order to explore this finding further in terms of possible influence of gender roles, further analysis of content was conducted though the numbers were small. Prevalent among women, especially those who were single, were paranoid sexual ideas such as what the authors term 'imposed intercourse', unusual terminology to say the least, a linguistic usage that perhaps reflects the very gender role stereotypes and norms of the time that the researchers were attempting to examine, conveying the societal acceptability of sexual assault toward women. Women, again particularly single women, had a higher rate of delusions of being married, engaged, and pregnant or having children. The authors report that the only sexual delusions more prevalent among men were masturbation among the single and delusions of partner infidelity among the married. The authors explain these differences in terms of differential gender role norms, prohibitions, and prescriptions regarding sexuality:

The content appears to reflect the more obvious sexual prohibitions and demands regarding the two sexes in our society—the greater social restrictions on intercourse, for example, in the single females as compared with the single males, the greater pressure on women to conform as regards marriage, and the more explicit condemnation of masturbation in men. (p. 757)

Men had almost twice as many delusions of 'inferiority', though this difference was not quite statistically significant. The authors defined 'inferiority' as 'having sinned, for example, or having committed a crime' and point out that many had a more '... depressive colouring...and included ideas of sin or crime, of poverty, and of unworthiness of some kind. Examples were beliefs of being a murderer, of being a thief, and of having blasphemed; such beliefs usually lacked the appropriate affect, or were associated with thought disorder' (p. 750). Other sex differences reported were that men had significantly more grandiose delusions of authority and power. Though trends are occurring in a small number of cases, the authors suggest that with larger sample sizes and more extensive analysis, these differences will be more pronounced and may point to the influence of gender role norms for sexuality on 'mental illness'.

Grounding their research in evolutionary psychology theory, Walston et al. examined sex differences in content of persecutory delusions hypothesizing that more women would identify familiar people as their persecutors and more men would identify strangers [73]. The authors utilized discharge summaries (11 female and 13 male) as data. Their hypothesis was confirmed underlining the cultural influence of gender socialization as possible explanatory factors in the sex differences in content though the researchers note limitations in drawing any firm conclusions due to the small sample size. They recommend future replication with larger, more representative samples including cross-cultural studies and investigating sex differences in the nature of the hostile threats.

### Studies from the United States

Sherman and Sherman [49], in one of the earliest studies in psychiatry detailing sociocultural variables, not only examined sex but also ethnic minority differences in psychosis content through examination of medical records of approximately 500 adult white and 400 adult black patients. One of the major differences in content was the finding that more men than women experience grandiose delusions. Interestingly, when examining ethnic minority differences, the authors report that while white women's delusional content consisted of predominantly paranoia compared to men, more black men experienced paranoia compared to black women. It must be emphasized that this study was carried out in 1934 where as the authors note, men's participation in public life was far greater than women's and the reverse finding with regard to paranoia being more prevalent among black men compared to black women may be due to black men's greater social participation and thus greater exposure to victimization due to discrimination and racism. The authors' explanation for grandiose delusions depathologizes psychotic experiences by suggesting they occur on a continuum with ordinary experience. Further, the authors highlight the importance of sociocultural context in shaping psychosis content:

Grandiose delusions are probably among the most simple forms of escape from and compensation for, difficulties and frustrations which the individual is unable to overcome. In the ordinary daydreams of children and adults, and in their planning for the future, we see the mechanism of grandiose delusions, but it is under control. Grandiose delusions also give us insight into the ideals of the individual, and into the goals set by the cultural situation. (p. 341)

Differences were also found in delusional content of American men which emphasize wealth; foreign-born men which focusses on literary and artistic talent; and black people where religious content was more predominant. The authors also looked at birthplace and found the highest rate of paranoid ideation among foreign-born white people. They also found paranoid delusions were more prevalent among black people from the more competitive northern regions and among individuals with little education, whereas grandiose delusions predominated among the college educated. Sherman and Sherman [45] also reported that hallucinations were more common among women than men and much more common among black people

than whites. However, the criteria for their broad diagnostic groups were not clearly defined.

Rudden et al. [46] compared the presentation of delusions in 44 males and 44 females, with DSM-III psychotic disorder diagnoses, through examining delusion content, attendant symptomatology, and ease of diagnosis in patient charts. This study examined sex differences in phenomenology in order to understand sex differences in psychodynamic conflicts and biological and sociocultural roles with the ultimate aim of improving diagnosis. The authors argue empirical investigation of these differences is important due to the probability of sex biases in descriptions of clinical disorders which are usually based on observation of male patients. In their investigation, in terms of delusion content, they found sex differences only with regard to those related to sexual themes and/or erotomania. Here erotomania refers to the persistent delusion of being loved from afar by another person [74]. The authors report that significantly more women had heterosexual erotic delusions and delusions of rape, impregnation, or venereal disease, whereas significantly more males had homosexual erotic delusions, findings reported by others [42, 51, 69, 70, 75–77]. The finding that more males reported delusions with homosexual themes and, in particular, delusions centring on aggression by a male hostile figure has been described by Rudden and colleagues [46] as a 'male prototype of paranoid phenomenology' which the authors state '...has led to psychodynamic explanations that emphasize denied and projected homosexual impulses' (p. 1575). With psychodynamic theory not yet having gone out of favour, this interpretation may not be surprising, however, as mentioned previously, in light of growing research demonstrating clear relationships between sexual abuse and psychosis (including sexual content of hallucinations/delusions predicting abuse histories) and the psychological impact of childhood sexual abuse on sexual identity and gender schemata (as discussed earlier); other interpretations may be equally valid. Moreover, such content cannot be understood clearly without reference to social context and systemic power relations (e.g. sexism and heterosexism). Other sex differences with regard to delusion content reported by the authors were that for women, more delusions centred around acquaintances, whereas men's delusions tended to be focussed on strangers, a finding also repeated in other studies [51, 78, 79]. The authors also reported that both sexes had many more male objects in their delusions than female and more men had delusions of reference.

The investigators also examined sex differences in precipitants for psychosis onset finding that more women had interpersonal precipitants recorded in their charts, which included rape, extramarital affairs, and first sexual encounters which may explain the predominance of delusions with sexual themes in the women though surprisingly this possibility is not suggested by the authors. One quarter of the women and only 13% of the men had family-related precipitants (e.g. quarrel with spouse) recorded in their charts, a finding repeated in other studies [42]. The authors report that women also had significantly higher mean depression scores, significantly more diagnoses that are not well-described discrete entities (e.g. atypical psychosis, schizoaffective disorder), and three women (and no men) received the diagnosis of atypical psychosis, using DSM-III criteria. The authors draw from

sociological, ethologic, and psychodynamic models to interpret their findings. For example, drawing on a sociological model, they explain the findings of sexual content differences, psychosocial precipitants for women, and male prevalence of the object of delusions with regard to gender role norms, male dominance, and less stigmatization of homosexuality for women than for men in Western society. They suggest that the predominance of sexual themes in women's delusions is related to self-worth and self-definition derived from roles as wives and mothers. Referring to psychodynamic and ethologic frameworks, explanations offered for women's more prevalent sexual delusions include those being related to greater fear of loss of love than men. The authors also suggest that men are more physically aggressive and thus may be 'a more ready symbol of threat or aggression' (p. 1577), which helps to explain the greater prevalence of men as objects of persecutory delusions. As mentioned above, surprisingly the authors do not link the objective conditions of violence in these women's lives (i.e. 9.1% of the women experienced precipitants such as rape and none of the men) to the prevalence of violent sexual delusions in women (i.e. rape). Thus for some of these women, male aggression may be a 'symbol' based on lived experience of gendered violence. The overwhelmingly high prevalence of violence against women and the impact of gender-based violence on mental health [66] should not be ignored as an important factor related to delusional expression, particularly when considering the recent research findings demonstrating strong links between childhood adversity and victimization and psychosis, as pointed out previously.

SGBA may have enhanced the methodology of these studies by taking life context into consideration and incorporating a macro-level analysis of social structural factors such as women's increased risk for exposure to sexual violence.

#### Studies from India

Menon, Cornelio, and Saraswathy emphasize the prominence of sociocultural roles, such as gender and occupational status in influencing sex differences in mental disorders. In a retrospective study, they examined all case records of patients over 18 years of age in a Government Mental Hospital in Madras focussing on documentation of delusions [69]. Of the 1973 records examined from case notes over a period of 18 years registered during the year 1976, 1219 were male and 754 female. Of the 214 records that documented delusions, 142 were male and 72 female. The majority of patients were diagnosed with schizophrenia. Consistent with other studies, Menon and colleagues report that grandiose delusions regarding extraordinary wealth and power are more common among men than women. They also report that women's delusions tend to be vague and 'culture-bound' which they explain as possibly being related to a lack of education as the majority of women were illiterate, much less educated than the men, and came from rural areas (p. 93). In their sample, significantly more men experienced what the authors termed 'hypochondriacal' delusions such as 'rotting or drying up of body parts' and more persecutory delusions than the women (p. 94). For women who were single, the authors report that there was a prevalence of what the authors describe as 'persecutory delusions with erotic feelings' which may refer to erotomania, but no other details are provided

(p. 94). Typically, more women than men were married, and the majority of women were married. With regard to other demographic differences, the men were younger, more literate, and had more outside employment.

Also in India, Kala and Wig [80], employing a sample of 200 (male n = 107; female n = 93) outpatients of a psychiatric clinic with a diagnosis of schizophrenia or 'paranoid state', examined delusional content and frequency using the Present State Exam adapting it according to the patient's linguistic and educational background. The majority of the sample (n = 190) had a diagnosis of schizophrenia. They reported women were more likely to develop delusions of infidelity [i.e. taken to be present when the patient, on specific questioning, expressed a belief that one's spouse was having an extramarital sexual affair and when such a belief was of delusional quality and intensity], whereas men more often had grandiose delusions and delusions of thought reading. The authors interpret this finding as related to gender relations and gender role norms in India whereby women are granted lower social status than men and are expected to be submissive. They explain:

In India, while extra-marital sex for males is considered just careless and irresponsible behaviour, for females it is a grave moral transgression. It seems to be much easier for a woman to believe that her husband is having an affair than it is for a man to believe the same in respect of his wife. (p. 192)

Kala and Wig also examined differences according to age, urban vs. rural, first vs. last born, geographic mobility, family type, and socioeconomic status (SES) [80]. They point to social rank as also underlying findings that delusions of persecution are higher in last born individuals, whereas grandiose delusions are higher in first borns. Two distinct profiles emerged with regard to SES, urban vs. rural, and education, in which one of wealthy, urban, educated, and male where grandiose delusions were more common versus poor, rural, illiterate, and female, where persecutory and delusions of bodily control were more prevalent; a finding very similar to the previous study [69] and Suhail's study in Pakistan is described below [51].

#### Studies from Pakistan

In addition to analysing sex and gender in delusional content, Suhail, in 2003, using a structured interview and the Present State Exam, examined social class [51]. He interviewed 48 men and 50 women with a schizophrenia diagnosis in Pakistan. Two distinct profiles emerged: one rich and male and the other poor and female. Themes of grandiosity (e.g. being a star and having physical and psychic powers) were more prevalent among men and economically advantaged patients, whereas themes of black magic, fantasy lovers, persecution, and being controlled were more prevalent in the female and poor subgroup. Suhail interprets this finding as a manifestation of the powerlessness perceived by women and lower classes. Analysis of content of religious delusions revealed men have more delusions where they have a special relationship and communication with God. A greater number of patients of lower social class believed that someone was trying to harm, hurt, or attack them, whereas patients of higher social class believed people were jealous of them and their

possessions. Ideas of being controlled especially bodily movements and actions were more prevalent in the women and lower class subgroup than the male and high social class group. Suhail [51] suggests that:

...the development of such ideas in certain subgroups is no exception in a culture where women are granted a secondary social role and where large economic and social gaps exist between higher and lower social strata. Moreover, submissive behaviour is expected from both of [sic] groups. (p. 198)

He draws direct links between social-structural context and delusional content, pointing out that the majority of erotomanic women belonged to the low social status and were experiencing psychosocial stressors such as marital disputes, beliefs that their husbands were not interested in them, and suspicions that their husbands were having extramarital affairs. It may be that erotomanic ideas reflect the sociocultural context for Pakistani women of lower social class where infidelity and the possibility of separation are much more threatening due to women's lack of financial independence. The author also suggests that the excess of erotomanic ideas in women may reflect suppression of any type of sexual activity of women [but not of men] in Pakistani society and could be viewed as a struggle between their own desires and the cultural gender proscriptions. Suhail reports that the higher prevalence of erotomanic ideas among women in his study is consistent with studies with patients in other countries such as Britain [37] and Saudi Arabia [81]. Sex differences were also found in content of persecutory delusions where men more often perceived persecutors as friends, but for women, they were family members, a finding reported by other researchers noted above [46, 78, 79]. The author also explains this difference by pointing to distinct gender role expectations of males and females in India such that 'women have to keep themselves confined to family affairs while men are expected to venture outside to face challenges of a harsh world' (p. 198). This study is a good example for demonstrating the usefulness of SGBA as when the sample was analysed as a whole, the delusion of persecution was most common followed by grandiose identity. However, when it was divided according to sex and social class, the two subgroup profiles were revealed.

## Studies from Greece

Kazamias, a psychiatrist in Greece, [82] noted that male patients expressed more grandiose delusions than female patients. He investigated this impression more systematically through examination of case notes of 50 patients (25 females and 25 males) diagnosed with paranoid schizophrenia and paranoid psychosis and interviews with 23 female and 20 male of those patients. His initial impression was supported finding that 14 of the males but only 1 female patient reported grandiose delusions. The author categorized delusions as grandiose if they were 'concerned with the possession by the patient of exceptional or supernatural qualities or abilities' (p. 229). Content of delusions for the men involved the belief that they were great scientists, writers and/or thinkers with a great mission to carry out, great politicians or royalties, or God. The female patient believed she was Virgin Mary, Mother of God. For the majority of patients who experienced persecutory delusions,

the persecutors were external to the family. There were no sex differences in this regard.

#### Studies from Australia

Allan and Hafner also explain their findings of sex differences in delusional content as being shaped by gender role norms [42]. In fact, they state, 'In many respects the form and content of the delusions mirror with surprising accuracy aspects of prevailing sex-role stereotypes' (p. 48). They examined case notes of 30 women and 30 men with DSM-III diagnosis of schizophrenic disorder and found that significantly more men reported grandiose delusions with subcategories of social status, psychological strength, and sexual power. The authors note that the structure of grandiose delusions '...mirror aspects of the patients' social environment' (p. 48) with women's special powers conferred on them by others or exercised vicariously through association with powerful or famous men. Conversely, men were more often subjects (as opposed to objects as were the women in this sample) in their grandiose delusions and acquired their powers directly being God or Jesus or having special skills or knowledge for the benefit of humankind. Another interesting difference was that the content of these grandiose delusions was nearly always positive for men, but for the minority of women who had grandiose delusions, their attributes nearly always described destructive effects such as floods, plagues, earthquakes, or World War II. Furthermore, males were more likely to be the persecutors in women's delusions and, as reported in other studies, were more likely to be personally known by the women than the men. Significantly more women experienced delusions of jealousy, the majority concerning infidelity of a partner. Again as with several other investigators cited previously, Allan and Hafner also report that in their sample men had many more homosexual persecutory delusions than did women [42]. In addition to reporting sex differences in delusional content, Allan and Hafner, as with Rudden et al. [46], reported that the women in their sample were significantly more likely to have experienced severe or extreme psychosocial stress, where 80% of cases related to marital or family conflict. Furthermore, the authors found that the level of functioning for women was significantly higher than men in the year before admission with the majority of men scoring poor to grossly disorganized on Axis V of the DSM-III.

While the above studies acknowledge a role of gender and social environment in the expression of delusions, the authors do not directly link life experiences to content.

## **Studies from Germany**

In Germany, Musalek, Berner, and Katschnig [79] examined sex and age differences in delusional content by examining 865 patient case records (sex-disaggregated n-sizes are not reported) with varying diagnoses from schizophrenia spectrum to bipolar and personality disorders. The authors emphasize the importance of life history and existential concerns which are distinct for men and women. They hypothesize that these concerns correspond to differential developmental stages in the expression of delusions though they did not collect data on life history, psychosocial stressors, or precipitants.

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Musalek and colleagues found that the delusion of love was noted almost exclusively in women (91.3% of their sample), and not after the age of 50. They also report that the theme of persecution occurred significantly later in women than in men (age 41–50 for women; 21–30 for men) and was more predominant in women (62.5% for women and 37.5% for men). Interestingly, in this sample, the theme of jealousy was mostly found in men (69.2% for men; 30.8% for women) and peaked at age 41–50, with more than two-thirds developing the delusion after age 40 and only 8.6% before age 30. This finding contrasts to studies in Australia [38], India [80], and Turkey [77] that found delusional jealousy was experienced predominantly by women.

#### **Studies from Austria**

Gutiérrez-Lobos et al. investigated links among age, sex, and diagnoses with delusional content [83]. Their sample consisted of 639 [males = 239, females = 400] first-admitted patients in Vienna from 1971 to 1974. Predominant diagnoses according to ICD-8 included schizophrenia, affective psychosis, and paranoid states.

Consistent with studies reviewed here, women were older upon admission and presented with more persecutory delusions than men who presented with significantly more grandiose delusions. Unlike most studies but similar to the aforementioned German study [79], delusions of jealousy were more prevalent among men.

## **Studies from Turkey**

Gecici and colleagues, recognizing that content of psychotic phenomena is likely to be influenced by social and cultural factors, point out that '...no culture is homogeneous and even within the same culture, there are different status classes, age and sex groups characterized by specific customs, social roles, and religious affiliations' (p. 204). Thus they investigated differences in content of delusions and hallucinations according to sex and geographic location within Turkey by examining case notes of 158 female and 215 male patients from Western and Central regions of Turkey, with a total of 346 experiencing delusions [82].

They reported that women experienced more delusions of poisoning and erotomania than males (21.5% and 8.2%, respectively). Delusions of jealousy were more prevalent among women with objects of delusions more often family or neighbours, whereas for men they were strangers, consistent with previous studies. The authors explain this difference as related to gender role socialization, similar to Suhail's interpretation of his findings in Pakistan (i.e. women are socialized to have a primary role in childcare and domestic tasks limited to the home; conversely men are socialized to work in the public sphere) [51]. Delusions of physical/mental injury were more predominant among men and Western region of Turkey. Delusions with a religious theme were also more common in men and in Central Turkey. The content of these delusions concerned being controlled by the devil and were often treated by exorcism. Again similar with Suhail's findings, the authors report that grandiose delusions were more prevalent among men than women and among men from Central Turkey which is more economically advantaged. Themes of these delusions consisted of being a star or important person and physical and psychic

powers. Gecici and colleagues found no sex differences in hallucination themes. In his sample, women were less likely to have higher education than men, more likely to be unemployed, had fewer hospitalizations than men (less than half), and were more likely to be married [82].

## 18.3.2.2 Erotomania

All of the above studies reported significantly higher prevalences of delusions of erotomania in women than men [37, 42, 46, 51, 69, 70, 75, 76, 79, 82]. In fact, Kraepelin, over a century ago, reported that women exhibited more heterosexual delusions than men [48]. The incidence of erotomania is not known, but that of delusional disorder in general has been reported as approximately 15 cases per 100,000 of the population per year, with a female-male ratio of 3:1 [84]. In a Japanese study by Yamada et al. of 4144 first-time psychiatric clinic attendees, of the 1.2% diagnosed with delusional disorder, females outnumbered males by 3:1 [85]. Historically, the excess of erotomania in females was so marked that it was suggested that the condition occurred almost exclusively in women [84].

A limitation of most studies reviewed here is that content analysis is superficial (lacking specific individual psychosis content) and decontextualized (no explicit explanation of psychosocial history, individual life experiences, or sociocultural context) with the exception of Suhail's study in Pakistan [51]. In fact, other studies, reporting on interpersonal precipitants [42, 46, 51, 86] and examining childhood abuse and content of psychotic phenomena, recommend employing qualitative methodologies to generate contextualized data where open-ended questioning generates narrative accounts. Using a qualitative methodology, Rhodes and Jakes found that delusional content for 14 men and women in their sample (numbers for each sex are not reported) reflected fundamental life concerns and personal goals, though they did not examine sex/gender differences [87]. While reporting on only 4 of the 14 participants in their sample, 3 male and 1 female, they analyse the content of participants' delusions in relation to life experiences and context. It is noteworthy that content of the three males relates to competence, status, and getting a job, whereas the content of the female participant relates primarily to 'loneliness' and attachment, findings which can be understood in terms of gender role norms. Rhodes and Jakes discuss the relevance of culture in influencing motivation and goals and point to the cross-cultural variation of delusional content [87], but the lack of SGBA is striking and might have informed their findings further.

## 18.3.2.3 Hallucinations

Klaf compared records of 75 females with a diagnosis of paranoid schizophrenia with records of 100 female nonpsychotic patients with diagnoses of personality disorders and psychophysiological disorders to investigate the Freudian hypothesis regarding the genesis of paranoid symptoms as a defence against unconscious homosexual wishes [75]. He reports that the hallucination and delusional content of the female paranoid group had prominent sexual content and religious

preoccupations but does not elaborate further details except to indicate that the evidence did not support Freud's hypothesis as almost 84% of the sexual content was 'heterosexual'. He also refuted Freud's hypothesis on the basis that the largest percentage of persecutors were male which is similar to other studies [42, 51, 78, 88].

Alan and Hafner also reported that both the men (N = 30) and women (N = 30) in their sample identified predominantly more male voices than female [42]. Interestingly, more women in their sample recognized the speaker. The researchers only reported on delusion content of their sample (discussed above).

Nayani and David explored the phenomenology of hallucinated voices through semi-structured interviews with 100 patients; the majority were diagnosed with schizophrenia (61%) [88]. They found that all patients were more likely to hear a male hallucinated voice than a female and, when amalgamating data on age and sex, more likely to hear a middle-aged male voice, followed by a young adult male and finally by a young adult female. The authors examined content and found that terms of abuse were the most prevalent, occurring in 60% of the whole sample. They found a clear sex difference in types of vilification and abuse conveying contempt and anger where 'female subjects described words of abuse conventionally directed at women (e.g. slut), and 32 male subjects similarly described "male" insults such as those imputing homosexuality' (p. 182). The primary characteristics of hallucinated voices reported were repetitive, emotive, context-driven, spatio-temporally organized, and highly personal.

The predominance of male hallucinated voices was also reported by Legg and Gilbert in a qualitative study interviewing ten females and ten males examining the power and rank of hallucinated voices [78]. They found the most common insult for men was sexual and that of being homosexual, whereas for females it was denigrating their appearance and being called 'fat and ugly'. The men in their sample were never called 'fat', and there was no homosexual insult for women. Similar to Nayani and David study, the content of the voices appears to reflect gender socialized norms [88]. Legg and Gilbert conceptualize the types of derogations by the voices as 'a direct social rank challenge designed to undermine confidence and maintain a subordinate position' (p. 523) [88]. They report that '... as the voices are experienced as demeaning and devaluing and indicating limitations on aspiration, they fit the dynamics of social rank theory (p. 525)'. For both sexes the importance of sexuality, acceptability, and desirability (and their shaming) is highly represented in the voices. Though the authors do not interpret their findings as such, gender imperatives are evident in the content for both sexes. Both men and women reported feeling more depressed and frightened when hearing insulting voices. Both male and female participants described feelings of 'shame, degraded, alone, and guilt'.

Correcting for the lack of SGBA in psychosis research and the underrepresentation of women, particularly ethnic minority women, we recently investigated hallucinated voice content of an ethnically diverse sample of female voice hearers [89]. Collecting data with a structured interview, we used SGBA and an intersectionality lens to systematically analyse voice content of 44 women diagnosed with schizophrenia examining the influence of intersecting social categories such as gender,

race, and class on the experience and expression of psychotic phenomena. Gendered conditions of worth were used by voices to undermine almost all women and racialized conditions of worth for over half the ethnic minority women. Findings reveal how social categories and structural inequalities in society are often reflected in voice content. We highlight important implications for employing intersectionality within psychological interventions.

Mitropoulos and colleagues in Greece [90], inspired by clinical experience, in a recent study systematically analysed sexual themes in delusion and hallucination content using case histories of 174 (104 male, 70 female) inpatients. The majority of the sample met criteria for DSM-IV-TR/DSM-5 schizophrenia-spectrum disorder diagnoses. They found that the content of psychotic experiences underlined societal gender prescriptions and proscriptions, particularly with regard to findings that delusional/hallucination content, which they organised into the themes: "being accused of/forced to homosexuality" and "being accused of/forced to sexual immorality"; the former being significantly more prevalent among men and the latter significantly more predominant among women. The authors place their findings in context by discussing the gender inequality especially regarding sexual behaviour in Greece where sexual permissiveness is expected for men but ridiculed in women and masculinity/femininity norms in which 'honor for men depends on manliness, while for women on sexual shame' (p. 9).

#### 18.3.2.4 Summary

What seems quite clear from this review of the few studies that do examine content and sex differences in psychotic experiences is what Sherman and Sherman theorized as early as 1934, namely, that psychotic phenomena may be meaningfully related to sociocultural variables, in particular gender [49]. The interaction of multiple factors with gender in shaping the phenomenology and expression of psychotic experiences is apparent. For example, this review has revealed that the pattern, formation, and content of delusions and hallucinations are shaped by various social factors - such as age, sex, marital status, 'race'/ethnicity, education, and social class underlining the usefulness of an intersectionality approach within SGBA. Many of the reported sex differences in hallucination and delusional content are related to sexuality and are more prevalent among women which is not surprising in light of the differential gender socialization of males and females with regard to control of one's sexuality [91] as well as more recent research findings linking childhood sexual abuse and psychosis [61] with females experiencing a greater incidence of sexual abuse [92, 93]. Furthermore, several studies have found that sexual content in hallucinations or delusions is associated with sexual abuse history [86, 94, 95].

Consistent findings across countries such as grandiose delusions being more prevalent among males and persecutory delusions among females are consistent with cross-cultural studies demonstrating that many gender role stereotypes are pancultural with differences mostly in terms of the weighting of these norms [96, 97]. Together with social role theory [98] and the universality of gender inequality and gender-based violence against women [66, 99], findings could be interpreted to provide some evidence for social-structural factors as having an important, if not central, role, in shaping psychotic phenomena.

#### 18.3.3 Gender and Response to Psychotic Experiences

#### 18.3.3.1 Interpersonal Relationships and the Social World

Birchwood and colleagues, in pioneering research, found individuals construct an interpersonal relationship with their voices that is characterized by subordination and a sense of powerlessness for those distressed by their voices [100, 101]. They and others more recently [102] found that this subordination by voices parallels subordination by others in the social world. Birrell and Freyd [103] have pointed out that '...although oppression is often institutionalized at societal levels, it is necessarily enacted in the context of interpersonal relationships' (p. 52). Brown [104] reiterates this perspective when describing feminist conceptualizations of power also conceptualized as internalized oppression:

Bias, stereotype, and oppression all constitute social forces that create disempowerment; they can be enacted in the large context of society or culture, the smaller context of family and community and intra-psychically, internalized and felt as part of self. (p. 31)

It is not surprising, then, that the experience of subordination by voices has been found to reflect experiences of subordination and marginalization in the social world, and hence any attempts at enhancing understanding both the subjective experience and the external environment would not be complete without an analysis of gender. A gender analysis, considering women's subordinate social status worldwide (WHO, 2004) [66] and a hegemonic masculinity subordinating certain classes of men as well as women (e.g. men of colour, sexual minorities), could potentially add to our understanding of the experience of subordination by voices specifically and to the experience and expression of psychotic phenomena in general.

Mary Boyle [105] criticizes the reluctance of the disciplines of psychology, psychiatry, and medicine to entertain the idea that:

...psychotic behaviours and experiences are *relational*, that they arise in social and interpersonal contexts that their form and content are given meaning by those contexts and that such behaviours are officially transformed to 'pathology' only through a relationship of unequal power. Context has been consistently marginalised or made secondary by traditional theory through, for example, the vulnerability-stress model which privileges an assumed inherent weakness or defect; through family research which insists on the family's influence only on the 'course of the illness' and through the claim that poverty or low social class are consequences and not antecedents of psychotic experiences. (p. 317)

Boyle's argument for the centrality of context in understanding psychosis and other forms of psychological distress, which feminist scholars have long argued since the slogan 'the personal is political' was coined. Kaschak's [106] work on how sociocultural phenomena are translated into personal experience is instructive. The same might be said for psychotic experiences; they are a translation of sociocultural phenomena which includes components of gender socialization.

The translation of sociocultural phenomena into personal experience provides another rationale for exploring subjectivity and meaning thus utilizing qualitative methods in which participants are given voice to identify aspects of their lives and social and interpersonal contexts of which researchers may not have even conceived let alone considered relevant. Furthermore, utilizing a qualitative method of analysis that incorporates grounded theory is consistent with Patricia Hill Collins' definition of 'interpretive' theorizing, in which she suggests that the social can be found in the individual to expand the reach or scope of the developing theory. As observed previously, it is not surprising then to find that social relationships are reflected in the content of an individual's hallucinated voices and 'delusional' beliefs but also in the relationship one has with their voices. One would also expect gender and other power relations and meanings to be reproduced in both the content and relationship one has with their voices.

Similarly, Jenkins [107], a medical anthropologist, points out how earlier theorists in the 1920s such as Edward Sapir and Harry Stack Sullivan, from the fields of anthropology and psychiatry, respectively, have claimed that we can learn much about culture from the behaviour of a person diagnosed with schizophrenia as well as from their subjective experience. In fact, it is how experience is interpreted that is shaped by culture. Jenkins explains:

Sapir's dynamic formulation of culture as created and recreated among persons in the process of social interaction paralleled Sullivan's (1953:10) conception of psychiatry as the study of interpersonal relations under any and all circumstances in which these relations exist. (p. 32)

### 18.3.3.2 Gender and Recovery

Sells, Stayner, and Davidson in their review of qualitative research on recovery in schizophrenia point out that: 'Evidence suggests that recovery of an active and effective sense of self as a social agent may play a crucial role in improvement from schizophrenia' (p. 88) [108]. Similarly, Schön, in a qualitative study, found that gender constructions and differential gender role expectations influence women's better recovery [27]. A total of 30 participants were interviewed dividing the sample equally between male and female informants. Many of the men in her sample had internalized masculine gender roles regarding the importance of independence, the prominence of work, and the ability to support themselves leading to a greater discrepancy between gender role norms and their own ability to meet these norms (i.e. gender role strain). Schön suggests this perceived discrepancy negatively impacted the recovery process for her participants. Consistent with other studies, the women she interviewed functioned better because of increased social support via a social network and differential gender role norms. Due to these norms, she explains, there is a greater acceptance of women's dependency on family and society in addition to lower expectations for women concerning work and studies. The male participants, on the other hand, were living a life quite different from other men in society thus contributing to a sense of inadequacy and not feeling like a 'normal man' (p. 563) [27]. Schön explains that in a Scandinavian context, for many men work is still an integral part of their gender identity; it is for them 'what life is all about' (p. 563) [27].

#### 18.4 Conclusion

This review has not been able to meet the title's promise of providing the reader with comprehensive knowledge on sex and gender in psychosis. Instead it has shown that we know very little, making the case for SGBA and demonstrating how the lens of gender highlights the interaction of micro-level (individual/intrapsychic) and macro-level (social-structural) factors in the development, presentation, and experience of and response to psychotic phenomena.

A prominent theme running across studies reviewed in this chapter is the centrality of relations and context, both interpersonal and sociocultural with regard to understanding psychotic experiences and recovery for people diagnosed with psychosis. As Ratner and Sawatzky contend: '...Gender must be understood in context; gender is merely a mental representation that must acquire its content or meaning from context' (p. 82) [109]. Similarly psychotic phenomena must also be understood in context: the historical, political, and sociocultural.

Avoiding the tendency of biological determinism to attribute unidirectional causation [110], SGBA examines the complex interactive contributions of biological, psychosocial, and cultural factors. Analysis of multiple structural forms of oppression through SGBA promotes investigation of social determinants such as ethnicity and class and their interaction with gender that influence the development, enactment, and experience of psychosis. Such expansion of focus may shed light on the many inconsistent findings with regard to sex differences illuminating underlying mechanisms which heretofore have remained elusive.

Of course, SGBA will not help us know everything about sex and gender in psychosis, but at the very least, it has the potential to guide us in the direction of being able to discover more than we know now.

#### References

- Pineles SL, Borba CPC. A path towards effectively investigating the impact of sex and gender on mental health. Clinical psychology review. 2018. Clin Psychol Rev. 2018;66:1–2. https:// doi.org/10.1016/j.cpr.2018.11.004.
- Mendrek A. Sex and gender differences in mental health research. In: Cohen S, Banister E, editors. What a difference sex and gender make: a gender, sex and health research casebook. Ottawa: Institute of Gender and Health of the Canadian Institutes of Health Research; 2012.
- Abel KM, Drake R, Goldstein JM. Sex differences in schizophrenia. Int Rev Psychiatry. 2010;22(5):417–28.
- 4. Falkenburg J, Tracy DK. Sex and schizophrenia: a review of gender differences. Psychosis Psychol Soc Integr Approach. 2012;6(1):61–9.
- 5. Kulkarni J, Gavrilidis E. Psychosis in women: Gender differences in presentation, onset, course and outcome of schizophrenia. Women and Health. 2nd ed; 2013. p. 1283–91.
- Leung A, Chue P. Sex differences in schizophrenia, a review of the literature. Acta Psychiatr Scand. 2000;101:3–38.
- McGrath J, Saha S, Chant D, Welham J. Schizophrenia: a concise overview of incidence, prevalence, and mortality. Epidemiol Rev. 2008;30:67–76.
- 8. Riecher-Rössler A, Hafner H. Gender aspects in schizophrenia: bridging the border between social and biological psychiatry. Acta Psychiatr Scand. 2000;102:58–62.

- Seeman MV. Gender. In: Clinical handbook of schizophrenia. Mueser, KT & Jeste DVNew York: Guilford: 2008.
- Riecher-Rössler A. Oestrogens, prolactin, hypothalamic-pituitary-gonadal axis, and schizophrenic psychoses. Lancet Psychiatry. 2017. https://doi.org/10.1016/S2215-0366(16)30379-0.
- 11. Riecher-Rössler A, Butler S, Kulkarni J. Sex and gender differences in schizophrenic psychoses—a critical review. Arch Womens Ment Health. 2018;21(6):627–48.
- 12. Morgan V, Castle DJ, Jablensky AV. Do women express and experience psychosis differently from men? Aust N Z J Psychiatry. 2008;42:74–82.
- Iacono WG, Beiser M. Are males more likely than females to develop schizophrenia? Am J Psychiatry. 1992;149:1070

  –4.
- 14. Iacono WG, Beiser M. Where are the women in first-episode studies of schizophrenia? Schizophr Bull. 1992b;18:471–80.
- 15. McGrath JJ, Susser ES. New directions in the epidemiology of schizophrenia. Med J Aust. 2009:190(4):S7–9.
- Thorup A, Waltoft BL, Pedersen CB, Mortense PB, Nordentoft M. Young males have a higher risk of developing schizophrenia: a Danish register study. Psychol Med. 2007;37:479–84.
- 17. Wahl OF, Hunter J. Are gender effects being neglected in schizophrenia research? Schizophrenia Bull. 1992;18(2):313–7.
- 18. Lewine RR. Sex: an imperfect marker of gender. Schizophr Bull. 1994;20(4):777–9.
- 19. Castle DJ, Wessley S, Murray RM. Sex and schizophrenia: effects of diagnostic stringency, and associations with premorbid variables. Br J Psychiatry. 1993;162:658–64.
- Aleman A, Kahn RS, Selten JP. Sex differences in the risk of schizophrenia: evidence from meta-analysis. Arch Gen Psychiatry. 2003;60:565–71.
- Saha S, Chant D, Welham J, McGrath J. A systematic review of the prevalence of schizophrenia. Public Library Sci Med. 2005;2:e141.
- 22. Perala J, Suvisaari J, Saarni SI, Kuoppasalmi K, et al. Lifetime prevalence of psychotic and bipolar I disorders in a general population. Arch Gen Psychiatry. 2007;64(1):19–28.
- 23. Longenecker J, Genderson J, Dickinson D, Malley J, Elvevag B, Wein-berger DR, et al. Where have all the women gone?: participant gender in epidemiological and non-epidemiological research of schizophrenia. Schizophr Res. 2010;119(1–3):240–5.
- 24. Chang WC, Tang JY, Hui CL, Chiu CP, Lam MM, Wong GH, Chung DW, Law CW, Tso S, Chan KP, Hung SF, Chen EY. Gender differences in patients presenting with first-episode psychosis in Hong Kong: a three-year follow up study. Aust N Z J Psychiatry. 2011;45:199–205.
- Nasser EH, Walders N, Jenkins JH. The experience of schizophrenia: What's gender got to do with it? A critical review of the current status of research on schizophrenia. Schizophrenia Bull. 2002;28(2):351–62.
- Riecher-Rössler A, Pflüger M, Borgwardt S. Schizophrenia in women. In: Kohen D, editor. Oxford textbook of women and mental health. Oxford: Oxford University Press; 2010. p. 102–14.
- 27. Schön U. Recovery from severe mental illness, a gender perspective. Scand J Caring Sci. 2010;24(3):557–64.
- Kirkbride JB, Errazuriz A, Croudace TJ, et al. Incidence of schizophrenia and other psychoses in England, 1950–2009: a systematic review and meta-analyses. PLoS One. 2012;7:e31660.
- 29. Andia AM, Zisook S, Heaton RK, Hesselink J, Jernigan T, Kuck J, et al. Gender differences in schizophrenia. J Nerv Ment Dis. 1995;183:522–8.
- Maric N, Krabbendam L, Vollebergh W, de Graaf R, van Os J. Sex differences in symptoms of psychosis in a non-selected, general population sample. Schizophr Res. 2003;63(1–2):89–95.
- 31. McGlashan TH, Bardenstein KK. Gender differences in affective, schizoaffective, and schizophrenic disorders. Schizophr Bull. 1990;16:319–29.
- Verdoux H, van Os J, Maurice-Tison S, Gay B, Salamon R, Bourgeois M. Increased occurrence of depression in psychosis-prone subjects: a follow-up study in primary care settings. Compr Psychiatry. 1999;40:462–8.
- 33. Garety P, Kuipers E, Fowler D, et al. A cognitive model of the positive symptoms of psychosis. Psychol Med. 2001;31:189–95.

34. van Os J, Verdoux H, Maurice Tison S, Gay B, Liraud F, Salamon R, Bourgeois M. Self-reported psychosis-like symptoms and the continuum of psychosis. Soc Psychiatry Psychiatr Epidemiol. 1999;34:459–63.

- 35. Cotton S, Lambert M, Schimmelmann BG, Foley DL, Morley KI, McGorry PD, Conus P. Gender differences in premorbid, entry, treatment, and outcome characteristics in a treated epidemiological sample of 661 patients with first episode psychosis. Schizophr Res. 2009;114:17–24.
- 36. Al-Issa I. Gender and schizophrenia. In: Al-Issa I, editor. Gender and psychopathology. New York: Academic; 1982. p. 153–77.
- Lucas CJ, Sainsbury P, Collins JG. A social and clinical study of delusions in schizophrenia. J Ment Soc. 1962:108:747–58.
- 38. Mirowsky J, Ross CE. Paranoia and the Structure of Powerlessness. Am Sociol Rev. 1983;48:228–39.
- 39. Thorup A, Petersen L, Jeppesen P, Ohlenschlæger J, Christensen T, Krarup G, Jorgensen P, Nordentoft M. Gender differences in young adults with first-episode schizophrenia spectrum disorders at baseline in the Danish OPUS study. J Nerv Ment Dis. 2007;195:396–405.
- Ochoa S, Usall J, Cobo J, Labad X, Kulkarni J. Gender differences in schizophrenia and first-episode psychosis: a comprehensive literature review. Schizophr Res Treatment. 2012;2012;916198.
- 41. Grossman LS, Harrow M, Rosen C, Faull R, Strauss GP. Sex differences in schizophrenia and other psychotic disorders: a 20-year longitudinal study of psychosis and recovery. Compr Psychiatry. 2008;49(6):523–9.
- Allan JA, Hafner JR. Sex differences in the phenomenology of schizophrenic disorder. Can J Psychiatr. 1989;34:46–8.
- 43. Hollander MH, Callahan AS. Erotomania and DerClerambault's syndrome. Arch Gen Psychiatry. 1975;32:1574–6.
- 44. Modlin H. Psychodynamics and management of paranoid states in women. Arch Gen Psychiatry. 1963;8:262–8.
- 45. Raskin DE, Sullivan KE. Erotomania. Am J Psychiatry. 1974;131:1033-5.
- 46. Rudden M, Sweeney J, Frances A, Gilmore M. A comparison of delusional disorders in women and men. Am J Psychiatry. 1983;140(12):1575–8.
- 47. Seeman MV. Schizophrenic men and women require different treatment programs. J Psychiatr Treat Eval. 1983;5:143–8.
- 48. Goldstein JM. The impact of gender on understanding the epidemiology of schizophrenia. In: Seeman MV, editor. Gender and psychopathology. Washington, DC: American Psychiatric Press, Inc.; 1995.
- 49. Sherman M, Sherman IC. Psychotic symptoms and social backgrounds. In: Bentley M, Cowdry EV, editors. The problem of mental disorder: a study undertaken by the Committee on Psychiatric Investigations National Research Council 1934. New York and London: McGraw-Hill Publishing Company, Ltd. p. 339–45.
- Yap PM. Mental diseases peculiar to certain cultures: a survey of comparative psychiatry. Br J Psychiatry. 1951;97:313–27.
- 51. Suhail K. Phenomenology of delusions in Pakistani patients: effect of gender and social class. Psychopathology. 2003;36(4):195–9.
- 52. LaTorre RA. The psychological assessment of gender identity and gender role in schizophrenia. Schizophr Bull. 1976;2(2):266–85.
- 53. Reed MR. The masculinity-femininity dimension in normal and psychotic subjects. J Abnorm Soc Psychol. 1957;55(3):289–94.
- 54. Levant RF. Research in the psychology of men and masculinity using the gender role strain paradigm as a framework. Am Psychol. 2011;66(8):765–76.
- 55. O'Neil J, Summarizing M. 25 years of research on men's gender role conflict using the gender role conflict scale—new research paradigms and clinical implications. [Review]. Counsel Psychologist. 2008;36(3):358–445.

- 56. Pleck JH. The myth of masculinity. Cambridge, MIT Press; 1981.
- 57. Pleck JH. The gender role strain paradigm: an update. In: Levant RF, Pollack WS, editors. A new psychology of men. New York: Basic Books; 1995.
- 58. Root MPP. Rethinking racial identity development: an ecological framework. In: Spickard P, Burroughs J, editors. We are a people: narrative in the construction and deconstruction of ethnic identity. Philadelphia, PA: Temple University Press; 2000.
- 59. Weinstein EA. Cultural aspects of delusion: a psychiatric study of the Virgin Islands. New York: The Free Press of Glencoe, Inc; 1962.
- Tolman DL, Impett EA, Tracy AJ, Michael A. Looking good, sounding good: femininity ideology and adolescent girls' mental health. Psychol Women Q. 2006;30(1):85–95.
- Varese F, Smeets F, Drukker M, Lieverse R, Lataster T, Viechtbauer W, et al. Childhood adversities increase the risk of psychosis: a meta-analysis of patient-control, prospective- and cross-sectional cohort studies. Schizophr Bull. 2012;38(4):661–71.
- 62. Sajatovic M, Jenkins J, Strauss M, Butt Z, Carpenter E. Gender identity among men and women with schizophrenia. Psychiatr Serv. 2005;56(1):96–8.
- 63. Johnson JL, Greaves L, Repta R. Better science with sex and gender: a primer for health research. Vancouver: Women's Health Research Network; 2007. p. 557–64.
- 64. Barrett AE, White HR. Trajectories of gender role orientations in adolescence and early adult-hood: a prospective study of the mental health effects of masculinity and femininity. J Health Soc Behav. 2002;43:451–68.
- 65. Whitely BE. Sex-role orientation and psychological wellbeing: two meta-analyses. Sex Roles. 1984;12:207–25.
- World Health Organization. Gender in mental health research report 2004. Geneva: Author. http://whqlibdoc.who.int/publications/2004/9241592532.pdf?ua=1. Accessed 29 Mar 2011.
- 67. Haarmans M, McKenzie K, Kidd S, Bentall RP. Gender role strain, core schemas and psychotic experiences in ethnically diverse women: a role for sex- and gender-based analysis in psychosis research? Clin Psychol Psychother. 2018;25:1–11. https://doi.org/10.1002/cpp.2307.
- Arieti S. An overview of schizophrenia from a predominately psychological approach. Am J Psychiatr. 1974;131:241–9.
- Sarada Menon M, Cornelio N, Saraswathy K. Delusions—a study in sex differences. Int J Soc Psychiatry. 1980;26:93–8.
- 70. Klaf FS, Davis CA. Homosexuality and paranoid schizophrenia: a survey of 150 cases and controls. Am J Psychiatry. 1960;116:1070–5.
- 71. Kinderman P, Read J, Moncrieff J, Bentall RP. Drop the language of disorder. Evid Based Ment Health. 2013;16:2–3.
- 72. Benedict PK, Jacks I. Psychiatry. 1954;17:377.
- 73. Walston F, David AS, Charlton BG. Sex differences in the content of persecutory delusions: a reflection of hostile threats in the ancestral environment? Evol Hum Behav. 1998;19:257–60.
- 74. Segal JH. Erotomania revisited: from Kraepelin to DSM-III-R. Am J Psychiatry. 1989;146(10):1261–6.
- 75. Klaf FS. Female homosexuality and paranoid schizophrenia. Arch Gen Psychiatry. 1961;1:84–6.
- 76. Galdos P, van Os J. Gender, psychopathology, and development: from puberty to early adulthood. Schizophrenia Res. 1995;14:105–112.
- 77. Gecici O, et al. Phenomenology of delusions and hallucinations in patients with schizophrenia. Bull Clin Psychopharmacol. 2010;20:204–12.
- 78. Legg L, Gilbert P. A pilot study of gender of voice and gender of voice hearer in psychotic voice hearers. Psychol Psychother Theory Res Pract. 2006;79:517–27.
- 79. Musalek M, Berner P, Katschnig H. Delusional theme, sex and age. Psychopathology. 1989;22(5):260–7.
- 80. Kala AK, Wig NN. Delusion across cultures. Int J Soc Psychiatry. 1982;28(3):185-93.
- 81. El-Assra A. Erotomania in a Saudi woman. Br J Psychiatry. 1989;155:553–5.

82. Kazamias NG. Sex difference in the incidence of grandiose delusions in paranoid patients in Greece. Int J Soc Psychiatry. 1970;16(3):228–31.

- 83. Gutiérrez-Lobos B, Schmid-Siegel B, Bankier B, Walter H. Delusions in first-admitted patients: gender, themes and diagnoses. Psychopathology. 2001;34:1–7.
- 84. Kelly B, Erotomania D. Epidemiology and management. CNS Drugs. 2005;19(8):657-69.
- 85. Yamada N, Nakajima S, Noguchi T. Age at onset of delusional disorder is dependent on the delusional theme. Acta Psychiatr Scand. 1998;97:122–4.
- 86. Reiff M, Castille DM, Muenzenmaier K, Link B. Childhood abuse and the content of adult psychotic symptoms. Psychol Trauma Theory Res Pract Policy. 2012;4(4):356–69.
- 87. Rhodes JE, Jakes S. Correspondence between delusions and personal goals: a qualitative analysis. Br J Med Psychol. 2000;73:211–25.
- 88. Nayani TH, David AS. The auditory hallucination: a phenomenological survey. Psychol Med. 1996;26(01):177–89.
- Haarmans M, Vass V, Bentall RP. Voices' use of gender, race, and other social categories to undermine female voice-hearers: implications for incorporating intersectionality within CBT for psychosis. Psychosis Psychol Soc Integr Approaches. 2016;8(3):203–13. https://doi.org/1 0.1080/17522439.2015.1131323.
- Mitropoulos GB, Gorgoli D, Houlis D, Korompili K, Lagiou C, Gerontas A. Psychosis and societal prescriptions of gender: a study of 174 inpatients. Psychosis Psychol Soc Integr Approaches. 2015;7:324. https://doi.org/10.1080/17522439.2015.1020333.
- Leaper C. The social construction and socialization of gender during development. In: Miller PH, Kofsky-Scholmick E, editors. Toward a feminist developmental psychology. Florence, KY: Taylor & Francis/Routledge.; 2000. p. 127–52.
- 92. Bebbington PE, Jonas S, Kuipers E, King M, Cooper C, Brugha T, Meltzer H, Mcmanus S, Jenkins R. Sexual abuse and psychosis: data from an English National survey. Br J Psychiatry. 2011;199:29–37.
- 93. Fisher H, Morgan C, Dazzan P, Craig T, Morgan K, Hutchinson G, Jones PB, Doody GA, Pariente C, McGuffin P, Murray RM, Leff J, Fearon P. Gender differences in the association between childhood abuse and psychosis. Br J Psychiatry. 2009;194:319–25.
- Beck JC, van der Kolk B. Reports of childhood incest and current behavior of chronically hospitalized psychotic women. Am J Psychiatr. 1987;144:1474

  –6.
- 95. Hardy A, Fowler D, Freeman D, Smith B, Steel C, Evans J, et al. Trauma and hallucinatory experience in psychosis. J Nerv Ment Dis. 2005;193:501–7.
- Rudman LA, Glick P. The social psychology of gender: how power and intimacy shape gender relations. New York: The Guilford Press.; 2008.
- 97. Williams JE, Satterwhite RC, Best DL. Pancultural gender stereotypes revisited: the five factor model. Sex Roles. 1999;40(7/8):513–25.
- 98. Eagly AH, Wood W. The origins of sex differences in human behaviour: evolved dispositions versus social roles. Am Psychol. 1999;54(6):408–23.
- 99. World Health Organization. (undated). Gender and women's mental health. http://www.who.int/mental\_health/prevention/genderwomen/en/. Accessed 29 Mar 2011.
- 100. Birchwood M, Gilbert P, Gilbert J, Trower P, Meaden A, Hay J, et al. Interpersonal and role-related schema influence the relationship with the dominant 'voice' in schizophrenia: a comparison of three models. Psychol Med. 2004;34(8):1571–80.
- 101. Birchwood M, Meaden A, Trower P, Gilbert J, Plainstow J. The power and omnipotence of voices and significant others. Psychol Med. 2000;30(2):337–44.
- 102. Hayward M, Berry K, Ashton A. Applying interpersonal theories to the understanding of and therapy for auditory hallucinations: a review of the literature and directions for further research. Clin Psychol Rev. 2011;31(8):1313–23.
- 103. Birrell PJ, Freyd JJ. Betrayal trauma: relational models of harm and healing. J Trauma Pract. 2006;5(1):49–63.
- 104. Brown LS. Feminist therapy. Washington, DC: American Psychological Association; 2009.
- 105. Boyle M. Schizophrenia: a scientific delusion? 2nd ed. London: Routledge; 2002.

- 106. Kaschak E. Engendered lives: a new psychology of women's experience. New York: Basic Books; 1992.
- Jenkins JH. Schizophrenia as a paradigm case for understanding fundamental human processes. Cambridge Stud Med Anthropol. 2004;11:29–61.
- 108. Sells DJ, Staynor DL, Davidson L. Recovering the self in schizophrenia: an integrative review of qualitative studies. Psychiatry Q. 2004;75(1):87–97.
- 109. Ratner PA, Sawatzky RG. Approaches to the measurement of gender. In: Oliffe JL, Greaves L, editors. Designing and conducting gender, sex, & health research. Los Angeles: Sage Publications, Inc; 2012. p. 65–84.
- 110. Read J, Bentall RP, Fosse R. Time to abandon the Bio-Bio-bio model of psychosis: exploring the epigenetic and psychological mechanisms by which adverse life events lead to psychotic symptoms. Epidemiol Psychiatr Soc. 2009;18(4):299–310.

## **Part IV**

# Mental Health Disorders Related to Hormonal Aspects



## **Adolescent Depression**

19

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#### **Abstract**

Despite the low rates of affective disorders during childhood, mood disorders increase significantly after puberty. Additionally, with the arrival of puberty, the prevalence among girls doubles the prevalence among males. The reasons for the gender difference are complex and not well understood. It is thought that the fluctuation of hormone levels and its influence in specific brain regions are the biological basis of this gender difference. In addition, a cognitive style prone to rumination among girls and the sociocultural factors, involving the "woman role" across different cultures, lead to strong emotions without the necessary cognitive resources to cope with them.

#### 19.1 Introduction

Affective symptoms are among the most common mental disorders during adolescence, and indeed mood disorder is the one receiving more comorbid diagnoses—up to 65% of them co-occur with other mental health problem [1, 2].

An increased rate of depression prevalence among adolescents has been observed in several countries [3]. This growing trend might reflect an increase at the mood

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disorder diagnoses or more individuals seeking for medical help, rather than a real increase. However, it is likely that a considerable number of adolescents with depressive symptoms are underdiagnosed [4–6].

Adolescent depression results frequently in poor academic functioning, social impairment, health problems and substance abuse [6]. In addition, several studies have associated it with adverse outcomes in adulthood [7]. These studies estimate that, overall, there is a two to fourfold risk of recurrence depression or persistence throughout the lifespan, somatic symptoms, especially headaches, poor social support, risk of suicide attempts as well as premature mortality [1, 2, 8].

Despite the low rates of affective disorders during childhood, after puberty it increases dramatically. The cause of this growth is due to multiple factors, including social, biological and psychological factors. Additionally, with the arrival of puberty, the prevalence among girls doubles the prevalence among males. The mechanisms underlying this are yet unknown [9].

Family history of depression, medical illness, psychosocial factors and having another mental disorder are some of the risk factors to develop an affective disorder during childhood or adolescence [2].

This chapter, which is an update of the same chapter in the last edition [10], reviews gender differences regarding clinical manifestations and etiopathogenesis of depression during adolescence.

## 19.2 Epidemiology

The prevalence of depressive disorders in children aged 4–11 years old is 0.2–1.1% [11, 12], increasing throughout child development and reaching rates between 7 and 20% among adolescents, being the highest rates found in Nordic countries [9, 13]. Nevertheless, some studies have reported rates of depressive symptoms among adolescents as much as 35% [14, 16]. These different prevalence rates might reflect differences in methods and assessments, information source, cultural factors (different rates in America, Europe or Arab countries, or in rural and urban areas) and whether the sample is a community sample or a school-based sample.

The number of adolescents affected by dysthymia is lower, with an estimated prevalence around 1% [15, 17].

During childhood both genders have a similar risk of developing depression. By contrast, a gender imbalance emerges in adolescence and persists throughout adulthood. Girls are deemed twice likely than boys to experience depressive symptoms, showing a lifetime prevalence of 15.9% for females and 7.7% for males [9, 18–21], according to cross-sectional studies of adolescents. Although this difference is considered among the most robust findings in psychopathology research, it is not fully understood yet which particular factors do enhance that difference.

Further, there are some discrepancies in regard to when the sex difference emerges. On the one hand, some authors suggested that the gender gap begins during early adolescence (12–13 years old) and diverges dramatically during middle adolescence, as reported in a birth cohort in New Zealand [22]. These authors

proposed that hormonal, social, emotional and physical changes would accentuate the sex imbalance, being all characteristics of the pubertal stage. Some other studies that support this hypothesis reported that the female to male ratio at the onset of puberty is around 1.7 and it increases to 2–3 into adulthood [14]. On the other hand, other studies concluded that gender difference emerges prior to adolescence [9, 23, 24]. Their hypothesis is that some factors occurring during childhood would influence the gender gap. For instance, the higher rate of anxiety disorders among girls during childhood has been associated with depression during the lifespan. Nevertheless, these factors are not well explained.

## 19.3 Clinical Characteristics in Children and Adolescent Depression

Depression expressions might differ depending on the stage of development. During childhood physiological and motor manifestations are predominant, while cognitive manifestations will become more important over the years [2]. Nissen describes different symptoms depending on the age. In pre-school ages, depressive symptoms usually appear in the form of rejection of playing, psychomotor agitation and hyperactivity, shyness, tantrums, encopresis, sleep disturbances, eating disorders and other somatic symptoms. At school age, the most common manifestations include irritability, insecurity, learning difficulties, shyness, enuresis, encopresis, nail biting, night terrors, tantrums and somatic symptoms. At puberty and adolescence, rumination, suicidal ideation, feelings of inferiority and oppression, changes in appetite and sleep and rebellious behaviours prevail [25]. Moreover, adolescent's symptomatology includes irritability and externalized symptoms [26].

Regarding sex differences, in prepubertal children, symptoms are similar for both males and females [27]. However, several studies have shown sex differences in depression symptoms during adolescence. Overall, females tend to express more physical symptoms such as appetite and weight changes, change in sleep patterns, psychomotor slowing and atypical symptomatology [28, 29]. Furthermore, females show increases in sadness, crying, guilt and worries about the future as well as difficulties in concentration, which may be related to rumination, a way of coping that has been described as more common among females. In contrast, libido decreases among depressed males [27, 29–31]. Further, adolescent males show a trend to impulse control difficulties, risk-taking, irritability and substance use [30].

Even though females might score higher in some of the items for the vast majority of assessment, it is believed that the severity is overall equal for both gender [32] and the differences are found in the symptoms. Similarly, the evolution of depression in females and males shows no difference concerning the number of days depressed or the chronicity, presenting approximately 70% of the cases a recurrent episode [28].

It is well known the risk of suicide among depressed patients. It is estimated that about 20% of depressed adolescents have a suicide attempt [33]. Whereas

the rates of suicidal thoughts are similar in females and males [32], some authors found that the number of suicide attempts is more frequent among adolescent females than adolescent males [29, 32, 33]. However, the reason for this difference is unknown.

Finally, comorbidity shows different paths as well. In general, women report higher rates of comorbid anxiety disorders like generalized anxiety disorder or panic disorder, while men are more likely to be affected by comorbid substance use disorder [32].

## 19.4 Explanatory Hypotheses of Gender Differences

As it was mentioned previously, a higher rate of depression in girls has been found consistently across different cultures, and, indeed, gender has been described as one of the strongest risk factors to suffer depression [15]. However, there is no agreement on a consistent hypothesis for this gender difference. Several hypotheses have been proposed sustaining a biological basis and involving the role of hormones, the hypothalamic-pituitary-adrenal (HPA) axis as well as the immune function as reasons for this gender difference, while others heightened the difference due to sociocultural factors.

### 19.4.1 Biological Factors

#### 19.4.1.1 Hormones

The neuroendocrine system plays an important role in the physical changes that begin in adolescence. The hypothalamus stimulates the pituitary gland, which releases hormones that trigger physical changes on several aspects such as body growth, cell metabolism and the development of the sexual characters.

During adolescence we can observe an increase in depression rates, the development of sexual characters, the increase of sexual hormones and the influence of the gonadal hormones in brain development. Some studies have therefore focused their interest on the role of gonadal hormones to elucidate the reason for the increased depression rates during adolescence as well as the gender differences in mood disorders [34].

In adults, different levels of oestradiol and testosterone have been observed in depressed women and men, suggesting a dysfunction in the hypothalamic-pituitary-gonadal axis [34, 35].

Some theories explain that women experience more fluctuation cyclically in hormone levels than men. According to these theories, these fluctuations would be responsible for a higher rate of depressed women through two mechanisms. Firstly, the glucocorticoids are not neutralized, and therefore women are more vulnerable to stress due to the continuous withdrawal of oestrogens during the menstrual cycle [36]. The second factor is the regulation of brain regions involved in the control of emotions by gonadal hormones, among others, the prefrontal cortex, hippocampus

or amygdala [19, 36, 37]. The amygdala (which regulates emotional stimuli) has different activity in males and females, and it has been observed that it is influenced by sex hormones in healthy population [38].

One of the hypothalamic-pituitary-adrenal (HPA) axis main functions is regulating the response to stress through its stimulation and the release of glucocorticoids [39]. As described elsewhere [34], different tests and measures of cortisol or corticotrophin showed abnormal results for depressed patients. Hence, several studies have focused on this system in order to find a possible dysfunction responsible for the pathophysiology of mood disorders. The results were inconsistent. While some authors reported higher morning cortisol levels in adolescent males with depressive symptoms than in depressed females [40], others did not find differences in serum cortisol levels between males and females [41]. It should be considered that some results might be influenced by the timing of measurement of cortisol, type of sample and other parameters.

A meta-analysis of brain structure reported sex differences in areas involved in neuropsychiatric disorders, like amygdala or hippocampus, revealing high concentrations of sexual hormone receptors [42, 43]. Goldstein and other authors believe that adverse events during prenatal period affect HPA axis and noradrenergic system, resulting in a hyperactive system, more vulnerable to suffer depression and anxiety disorders. The onset of adolescence, the flooding or depletion of hormones added to a dysfunctional HPA axis, where we can find a high concentration of gonadal hormones receptors, might increase the risk of mood disorders. To summarize, gender difference in depression would start during fetal development, and it would emerge with the onset of adolescence, if a genetic vulnerability exists [34, 43, 44].

The role of oxytocin in the etiology of depression has been studied as well, due to its known implication in prosocial behaviours and its observed effect on the HPA axis, reducing cortisol release and anxiety [45, 46]. Findings support that oxytocin levels among depressed women fall compared to healthy control [47–49]. By contrast, males with a mood disorder show higher levels than healthy men, though these results were nonconclusive [48].

A gender difference is observed but yet unexplained. Some theories have been suggested. First, oxytocin hormone promotes social attachment, trust and social support. It is proposed that depressed females, who might suffer social isolation, release lower levels of oxytocin [49]. Another hypothesis supports the effect of oxytocin on the HPA axis. In studies with rats, oxytocin stimulated hypothalamic neurons in males and had an inhibitory effect in females. The inhibition of HPA axis by oxytocin would occur exclusively with the presence of oestradiol, in other words, only in females [49, 50].

#### 19.4.1.2 Differences at the Brain Level

Research with brain imaging techniques and postmortem studies have shown both structural and functional brain differences between males and females during depression. In healthy populations a greater volume of the hippocampus in women and a greater volume of the amygdala in men are observed [34].

Some authors have investigated the differences through EEG. Overall, people with depression show an asymmetry of the electrical activity in the right frontal lobes, while healthy individuals show equal activity. Specifically, women with a history of depression since childhood show variations of alpha waves in the right frontal lobe. However these results are inconsistent [30, 51].

With regard to brain function and structure, the role of neurotrophins is important. Neurotrophins are responsible for regulating neurogenesis, neuronal growth, differentiation, plasticity of neuronal networks and cell death. Adolescence is a period of neuroplasticity driven partly by neurotrophic factors which might lead to the depression neural basis [52].

One of the neurotrophic factors is the brain-derived neurotrophic factor (BDNF). Multiple studies agree that blood BDNF levels decrease among depressive patients, correlated with the severity, and increase again after antidepressant treatment [52, 53]. Other factors like NGF and NT-3 show decreased levels only among women, which supports the idea of a gender difference in the neurotrophin pathway [52].

#### 19.4.1.3 Genetics

Studies in families and twins show the importance of genetic factors in the appearance of depression. Studies are finding higher rates of this disorder among the relatives of a depressed person [54], estimating a heritability of 37%. The influence of genetic factors is confirmed by research in adoptive families, showing a higher correlation in biological than in adoptive parents [55].

In recent Genome-wide association studies (GWAS), no locus has been linked to depression at a significant level. Given the multiple genes associated with mood disorders and after analysing these genes, it was concluded that each gene contributes to rising the risk of depression [54].

Social factors and stressful life events characterizing the adolescence have led some studies to suggest that mood disorder rates rise dramatically at the onset of adolescence because of the risk that some of these genes confer. Moreover, several studies have reported that the interaction gene x environment (GxE) becomes more significant with older ages. One example is 5-HTTLPR, a serotonin transporter associated with depression which constitutes a vulnerability that can increase the effect of social interaction and peer rejection [22].

Regarding sex differences, variations in genes are involved in serotonin receptors, neural connectivity, remodelling and HPA axis. Different studies suggest that women and men might show different genes vulnerable for depression, and with the interaction of environment, both women and men converge onto the same biological pathways [56, 57].

#### 19.4.1.4 Immune Factors

Alterations in the immune system have been widely described in several psychiatric disorders. Even if not fully understood, studies showing cytokine imbalance, presence of autoantibodies or family history of autoimmune diseases have increased the interest in this field.

Studies show higher prevalence of mood disorders when there is another inflammatory disease co-occurring. Furthermore, an increase in cytokines like IL-6 or IL-1 has been reported in depressed patients, both adults and adolescents [58, 59].

Some studies regarding depression and sex have revealed a rise in proteins involved in immune functions in depressed males. The TFF3, cystatin-C or  $\beta$ 2-microglobulin cells are important for the lymphocyte and macrophage functions. Likewise, different levels of molecules between patients and controls have been found [41]. Both HPA and hypothalamic-pituitary-gonadal axes modulate the neuroinflammatory circuitry. Therefore some authors describe that stress differentially alters neuroinflammatory mechanisms associated with depression based on sex [58].

#### 19.4.2 Cognitive Factors

Many authors have described adolescence as a period of exposure to physical and psychological changes, mood disturbances and an increase of social interactions and a focus on friendships. At the same time, it is widely reported that stressful life events are one of the strongest associations with youth depression. A model that tries to give an explanation to the increase of depression during those years explains that the brain regions involved in affection and emotion, like the amygdala, maturate during this period. However, the cognitive development, like the prefrontal cortex, is not yet well established. Adolescents experience stronger emotions and have other changes, e.g. physical or sexual, but do not have the cognitive abilities to deal with them [60].

It is not known why some adolescents experience a depressive episode and others, even being exposed to the same stressor, do not. One of the theories suggests that a negative cognitive style and a tendency to rumination increase the incidence of mood disorders. People with this negative cognitive style are more prone to feel peer rejection and to amplify negative affect [61–63].

Girls tend to present a stronger negative emotion, especially in relation to their peer interactions [37, 61]. The reason proposed by some authors is the association between strong negative emotions and a higher rate of rumination among girls. Healthy girls indeed show bias in their process of emotion with a tendency to the negative affect [37]. These two factors, rumination and negative affect, have been associated to future depressive symptoms only in girls [62, 64].

Additionally, adolescent females are more prosocial than males or adults [60]. The combination of more peer interactions and feeling stronger emotions in relation to these relations would lead to higher rates of depression among girls.

#### 19.4.3 Sociocultural Factors

The familiar and social background of the child, and later of the adolescent, is the main vehicle to transmit sociocultural values and beliefs in which people build their identity. Stress life events, as stressful situations at home, bad relationship with parents, peer rejection or abuse, are risk factors to develop depression in the future [65–67].

As it was mentioned before, adolescence is a critical period with strong emotions, several changes and increase in the interpersonal events that trigger mood disturbances [61].

Regarding sex difference, the named "social gender role theory" attributes the strong imbalance of rates of depression in women and men to the social status of women across different cultures and periods. It is based on the "female role" that implies passivity, body shame, fear and vulnerability and niceness. Because of this role, women would experience a chronic stress and would use rumination as a coping technique, leaving them more exposed to mood disorders [21, 68]. Gender role orientations are present as patterns since childhood, but differences between men and women get more accentuated in adolescence due to the social pressure to fulfil with established gender roles [66].

#### 19.5 Discussion

Depression is a cause of disability across the lifespan. The diagnoses increase dramatically with the onset of adolescence, as well as the rates of women diagnosed with mood disorders, being female one of the strongest risk factor to develop a depression disease. The consequences are recurrence of depression, suicide attempts or premature mortality by multiples causes [1, 8].

As discussed above, the reasons for the gender difference are complex and not well understood. It is thought that the fluctuation of hormone levels and its influence in specific brain regions, involved in emotional control like amygdala or HPA axis, are the biological basis of this gender difference. In addition, a cognitive style prone to rumination among girls and the sociocultural factors, involving the "woman role" across different cultures, lead to strong emotions without the cognitive resources necessary to cope with them [60].

In conclusion, adolescent depression is a global health priority facing different challenges. Firstly, children and adolescents are underdiagnosed, and moreover there is a low demand, due to a poor self-awareness and mental health stigma. Secondly, few studies have focused on the gender difference at the onset of puberty, and results are not conclusive. Finally, further studies will help to understand the underlying mechanism of depression at this age and therefore to improve the treatment.

#### References

 Archer G, Kuh D, Hotopf M, Stafford M, Richards M. Adolescent affective symptoms and mortality. Br J Psychiatry. 2018;213(1):1–6.

- 2. Bhatia SK, Bhatia SC. Childhood and adolescent depression. Am Fam Physician. 2007;75(1):73–80.
- 3. Wartberg L, Kriston L, Thomasius R. Depressive symptoms in adolescents. Dtsch Arztebl Int. 2018;115:549–55.
- Wiens K, Williams JVA, Lavorato DH, Du A, Pringsheim M, Sajobi TT, et al. Is the prevalence of major depression increasing in the Canadian adolescent population? Assessing trends from 2000 to 2014. J Affect Disord. 2017;210:22–6.
- Ando S, Nishida A, Usami S, Koike S, Yamasaki S, Kanata S, et al. Help-seeking intention for depression in early adolescents: associated factors and sex differences. J Affect Disord. 2018;238:359–65.
- Forman-hoffman VL, Viswanathan M. Screening for depression in pediatric primary care. Psychiatry Prim Care. 2018;20(62):1–10.
- 7. Patel V. Why adolescent depression is a global health priority and what we should do about it. J Adolesc Health. 2013:52:511–2.
- Naicker K, Galambos NL, Zeng Y, Senthilselvan A, Colman I. Social, demographic, and health outcomes in the 10 years following adolescent depression. J Adolesc Health. 2013;52:533–8.
- Breslau J, Gilman SE, Stein BD, Ruder T, Gmelin T, Miller E. Sex differences in recent first-onset depression in an epidemiological sample of adolescents. Transl Psychiatry. 2017;7:e1139–6.
- Noval-Aldaco E, Ruíz-Torres M, López-Gil J, Payá-González B. Adolescent depression. In: Psychopathology in women incorporating gender perspective into descriptive psychopathology; 2014. p. 400–21.
- 11. Korkodilos M. The mental health of children and young people in England. London Public Heal England; 2016.
- 12. Lawrence D, Johnson S, Hafekost J, Boterhoven de Haan K, Sawyer M, Ainley J, Zubrick SR. The mental health of children and adolescents. Canberra Dep Heal. 2015.
- Granrud MD, Kjersti A, Steffenak M, Theander K. Gender differences in symptoms of depression among adolescents in Eastern Norway: results from a cross-sectional study. Scand J Public Health. 2019;47(2):157–65. https://doi.org/10.1177/1403494817715379.
- 14. El-missiry A, Soltan M, Hadi MA, Sabry W. Screening for depression in a sample of Egyptian secondary school female students. J Affect Disord. 2012;136:e61–8.
- 15. Sund AM, Larsson B, Wichstrøm L. Prevalence and characteristics of depressive disorders in early adolescents in central Norway. Child Adolesc Psychiatry Ment Health. 2011;5:28.
- Maharajh H, Ali A, Konings M. Adolescent depression in Trinidad and Tobago. Eur Child Adolesc Psychiatry. 2006;15:30–7.
- 17. Avenevoli S, Swendsen J, He J, Burstein M, Merikangas K, Activities E. Major depression in the National Comorbidity Survey-Adolescent Supplement: prevalence, correlates, and treatment. J Am Acad Child Adolesc Psychiatry. 2015;54(1):37–44.
- 18. Bulhões C, Ramos E, Severo M, Dias S, Barros H. Measuring depressive symptoms during adolescence: what is the role of gender? Epidemiol Psychiatr Sci. 2017;28:1–11.
- Dardas LA, Silva SG, Smoski MJ, Noonan D, Simmons LA. Adolescent depression in Jordan. Symptoms profile, gender differences, and the role of social context. J Psychosoc Nurs Ment Health Serv. 2018;56(2):44–55.
- 20. Merikangas K, He J. Lifetime prevalence of mental disorders in U.S. adolescents: results from the adolescent supplement (NCS-A). J Am Acad Child Adolesc Psychiatry. 2010;49(10):980–9.
- Wang K, Lu H, Cheung EFC, Neumann DL, Shum DHK, Chan RCK. "Female preponderance" of depression in non-clinical populations: a meta-analytic study. Front Psychol. 2016;7:1398.
- Hankin BL, Young JF, Abela J, Smolen A, Jenness J, Gulley LD, et al. Depression from child-hood into late adolescence: influence of gender, development, genetic susceptibility, and peer stress. J Abnorm Psychol. 2015;124(4):803–16.

- Abebe DS, Frøyland LR, Bakken A, Von Soest T. Municipal-level differences in depressive symptoms among adolescents in Norway: results from the cross-national Ungdata study. Scand J Public Health. 2016;44:47–54.
- 24. Salk RH, Hyde JS, Abramson LY, Hyde JS, Abramson LY. Gender differences in depression in representative national samples: meta-analyses of diagnoses and symptoms. Psychol Bull. 2017;143(8):783–822.
- 25. Nissen G. Depressive syndromes in childhood and adolescence: symptomatology, etiology and prognosis. Monogr Gesamtgebiete Psychiatr. 1971;4:171–4.
- 26. Benarous X, Hassler C, Falissard B, Consoli A, Cohen D. Do girls with depressive symptoms exhibit more physical aggression than boys? A cross sectional study in a national adolescent sample. Child Adolesc Psychiatry Ment Health. 2015;9:41.
- 27. Kouros C, Garber J. Trajectories of individual depressive symptoms in adolescents: gender and family relationships as predictors. Dev Psychol. 2014;50(12):2633–43.
- Salk RH, Petersen JL, Abramson LY, Hyde JS. The contemporary face of gender differences and similarities in depression throughout adolescence: development and chronicity. J Affect Disord. 2016;205:28–35.
- Kim J, Cho MJ, Hong JP, Bae JN, Cho S, Hahm B, et al. Gender differences in depressive symptom profile: results from nationwide general population surveys in Korea. J Korean Med Sci. 2015;30:1659–66.
- 30. Khesht-Masjedi SS, Abdollahi E, Golshahi M, Sharif-ghaziani Z. Comparing depressive symptoms in teenage boys and girls. J Fam Med Prim Care. 2017;6:775–9.
- 31. Van Beek Y, Hessen DJ, Hutteman R. Age and gender differences in depression across adolescence: real or bias? J Child Psychol Psychiatry. 2012;53(9):973–85.
- Schuch JJJ, Roest AM, Nolen WA, Penninx BWJH, De Jonge P. Gender differences in major depressive disorder: results from the Netherlands study of depression and anxiety. J Affect Disord. 2014;156:156–63.
- 33. Rohde P, Lewinsohn PM, Klein DN. Key characteristics of major depressive disorder occurring in childhood, adolescence, emerging adulthood, adulthood. Clin Psychol Sci. 2013;1(1). https://doi.org/10.1177/2167702612457599.
- 34. Goldstein JM, Holsen L, Handa R, Tobet S. Fetal hormonal programming of sex differences in depression: linking women's mental health with sex differences in the brain across the lifespan. Front Neurosci. 2014;8:247.
- 35. Bangasser D, Valentino R. Sex differences in stress-related psychiatric disorders: neurobiological perspectives. Front Neuroendocrinol. 2014;35(3):303–19.
- 36. Faravelli C, Alessandra M, Castellini G, Lo Sauro C. Gender differences in depression and anxiety: The role of age. Psychiatry Res. 2013;210:1301–3.
- 37. Victor T, Drevets W, Savitz J. Sex differences in neural responses to subliminal sad and happy faces in healthy individuals: implications for depression. J Neurosci Res. 2017;95(1–2):703–10.
- 38. Petersen N, Cahill L. Amygdala reactivity to negative stimuli is influenced by oral contraceptive use. Soc Cogn Affect Neurosci. 2015;10:1266–72.
- 39. Gupta D, Morley JE. Hypothalamic-pituitary-adrenal (HPA) axis and aging. Compr Physiol. 2014;4:1495–510.
- 40. Owens M, Herbert J, Jones PB, Sahakian BJ, Wilkinson PO, Dunn VJ. Elevated morning cortisol is a stratified population-level biomarker for major depression in boys only with high depressive symptoms. Proc Natl Acad Sci U S A. 2014;111(9):3638–43.
- 41. Ramsey JM, Cooper JD, Bot M, Guest PC, Lamers F, Weickert CS, et al. Sex differences in serum markers of major depressive disorder in the Netherlands Study of Depression and Anxiety (NESDA). PLoS One. 2016;11(5):e0156624.
- 42. Ruigrok A, Salimi-Khorshidi G, Lai M. A meta-analysis of sex differences in human brain structure. Neurosci Biobehav Rev. 2014;39(100):34–50.
- 43. Goldstein J, Handa R, Tober S. Disruption of fetal hormonal programming (prenatal stress) implicates shared risk for sex differences in depression and cardiovascular disease. Front Neuroendocrinol. 2014;35(1):140–58.

- 44. Goldstein JM, Hale T, Foster SL, Tobet SA, Handa RJ. Sex differences in major depression and comorbidity of cardiometabolic disorders: impact of prenatal stress and immune exposures. Neuropsychopharmacology. 2019;44(1):59–70.
- 45. Mcquaid RJ, Mcinnis OA, Abizaid A, Anisman H. Making room for oxytocin in understanding depression. Neurosci Biobehav Rev. 2014;45:305–22.
- 46. Cochrna D, Fallon D, Hill M, Frazier J. The role of oxytocin in psychiatric disorders: a review of biological and therapeutic research findings. Harv Rev Psychiatr. 2014;21(5):219–47.
- 47. Ozsoy S, Esel E, Kula M. Serum oxytocin levels in patients with depression and the effects of gender and antidepressant treatment. Psychiatry Res. 2009;169:249–52.
- 48. Yuen KW, Garner JP, Carson DS, Keller J, Lembke A, Hyde SA, et al. Plasma oxytocin concentrations are lower in depressed vs. healthy control women and are independent of cortisol. J Psychiatr Res. 2014;51:30–6.
- 49. El A, Omar NM, Alshahawy HH, Hewedi DH, Hashem RE, Tawfik FA. Relationship between oxytocin level and major depressive disorder. Egypt J Hosp Med. 2018;72(11):5628–33.
- Ochedalski T, Subburaju S, Wynn PC, Aguilera G. Interaction between oestrogen and oxytocin on hypothalamic-pituitary-adrenal axis activity neuroendocrinology. J Neuroendocrinol. 2007;19:189–97.
- 51. Jesulola E, Sharpley CF, Agnew LL. The effects of gender and depression severity on the association between alpha asymmetry and depression across four brain regions. Behav Brain Res. 2017;15(321):232–9.
- Pallavi P, Sagar R, Mehta M, Sharma S, Subramanium A, Shamshi F, et al. Serum neurotrophic factors in adolescent depression: gender difference and correlation with clinical severity. J Affect Disord. 2013;150:415–23.
- 53. Kreinin A, Lisson S, Nesher E, Schneider J. Blood BDNF level is gender specific in severe depression. PLoS One. 2015;10(5):e0127643.
- 54. Shadrina M, Bondarenko EA, Slominsky PA. Genetics factors in major depression disease. Front Psychiatry. 2018;9:334.
- 55. Harrington R, Fudge H, Rutter M. Child and adult depression: a test of continuities with data from a family study. Br J Psychiatry. 1993;162:627–33.
- Labonté B, Engmann O, Purushothaman I, Menard C, Wang J, Tan C, et al. Sex-specific transcriptional signatures in human depression. Nat Med. 2017;23(9):1102.
- 57. Priess-groben HA, Hyde JS. 5-HTTLPR X stress in adolescent depression: moderation by MAOA and gender. J Abnorm Child Psychol. 2013;41:281–94.
- 58. Jeon SW, Kim Y. The role of neuroinflammation and neurovascular dysfunction in major depressive disorder. J Inflamm Res. 2018;11:179–92.
- 59. Kim J, Szigethy E. Inflammatory markers and the pathogenesis of pediatric depression and suicide: a systematic review of the literature. J Clin Psychiatry. 2014;75(11):1242–53.
- 60. Frost A, Hoyt LT, Levy A, Adam EK. Daily life with depressive symptoms: gender differences in adolescents 'everyday emotional experiences. J Adolesc. 2015;43:132–41.
- 61. Hankin BL. Development of sex differences in depressive and co-occurring anxious symptoms during adolescence: descriptive trajectories and potential explanations in a multi-wave prospective study. J Clin Child Adolesc Psychol. 2009;38(4):460–72.
- Bastin M, Vanhalst J, Raes F, Bijttebier P. Co-brooding and co-reflection as differential predictors of depressive symptoms and friendship quality in adolescents: investigating the moderating role of gender. J Youth Adolesc. 2018;47(5):1037–51.
- 63. Gomez-baya D, Mendoza R, Paino S, Gillham JE. A two-year longitudinal study of gender differences in responses to positive affect and depressive symptoms during middle adolescence. J Adolesc. 2017;56:11–23.
- 64. Alarcón G, Forbes E. Prosocial behavior and depression: a case for developmental gender differences. Curr Behav Neurosci Rep. 2018;4(2):117–27.
- 65. Alto M, Handley E, Rogosch F, Cicchetti D, Toth S. Maternal relationship quality and peer social acceptance as mediators between child maltreatment and adolescent depressive symptoms: gender differences. J Adolesc. 2018;63:19–28.

- 66. Anyan F, Hjemdal O. Stress of home life and gender role socializations, family cohesion and symptoms of anxiety and depression. Women Health. 2018;58(5):548–64.
- 67. Giraldo Gallo EA, Neuenfeld Munhoz T, de Mola LC, Murray J. Gender differences in the effects of childhood maltreatment on adult depression and anxiety: a systematic review and meta-analysis. Child Abuse Negl. 2018;79:107–14.
- 68. Maji S. Society and 'good woman': a critical review of gender difference in depression. Int J Soc Psychiatry. 2018;64(4):396–405.



## Premenstrual Experience, Premenstrual Syndrome, and Dysphoric Disorder

20

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#### **Abstract**

The major criticisms made to the conceptualization of PMDD as a clinical syndrome focus on pathologizing of women's biology and its consequent medicalization which perpetuated misconceptions related to menses. This is a reality in History of Medicine. The excessive medicalization of the menstrual experience that interferes in life is very important in Western countries. Premenstrual syndrome (PMS) is a health problem that affects millions of women of reproductive age and, in some cases, may be severe enough to be considered as a premenstrual dysphoric disorder (PMDD). Both, PMS and PMDD, are composed by affective, behavioural, and physical symptoms. Risk factors identified, which predispose to PMS/PMDD, are the age between 25 and 35 years, to have a psychiatric history, family history of PMDD, unhealthy living habits, and the apparition of stressful life events. In addition to that, it has been established a comorbidity of PMDD with various psychiatric disorders as major depression and anxiety disorders. The first-line treatment for PMDD is pharmacological with SSRIs. From the medical point of view, there is some evidence of the efficacy of non-pharmacological treatments such as relaxation and aerobic and cognitive behavioural therapy that are used mostly in mild cases. Some authors

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remind us the historical and negative conceptions about the female body plus a reproductivist vision, as the cause of many women's behaviour, have had a determinate influence in the consideration about women's experience as diseases. In our opinion, we consider it is important to rethink about it and talk about premenstrual experience instead of syndrome. It could be used to reinforce and maintain the patriarchal model. If women are treated medically because of their own biology, they would respond again to the female stereotype of women as mild, placid, and undemanding. At the same time, for some women could represent an attractive explanation to justify their oppression and their relative lack of success compared to men. This means that women can attribute their subordination and oppression to something identifiable and potentially curable, rather than attributing to gender power relations. Finally, the concept clearly benefits to the pharmaceutical industry, as the medicalization of premenstrual experiences increased their market.

#### 20.1 Introduction

It is called premenstrual syndrome (PMS) to the recurrent pattern of emotional, behavioural, and physical symptoms that appear during the last week of the luteal phase and reversed during the first days of menses. When the symptoms of premenstrual syndrome are very severe and produce a decrease in functional impairment, it is defined as premenstrual dysphoric disorder (PMDD). The symptoms, as in the case of PMS, usually start 5–7 days before menses, reaching its peak of greatest intensity during the 2 days before the start of menses disappearing few days after. Currently, the relationship between PMS and PMDD is unclear, although most clinicians consider that there is a continuum between these premenstrual problems, constituting PMDD as the more severe stage [1].

PMS and PMDD are generally accepted as a medical reality, with physical symptoms, negative moods including sadness, anxiety and irritability, and behavioural changes.

The birth of the term "premenstrual tension" (precursor of PMS) in 1991 resulted in extensive biomedical research, but much of both the biological and psychological theorizing about PMS is predicated on the assumption that PMS is a real identifiable biological disease [2]. However, despite many years of scientific research, fundamental questions remain unanswered.

On the other hand, during all these years, many authors have criticized the concept, suggesting a not simply biological point of view and developing a vision that takes into account the relationships between gender and psychiatry, with contributions from anthropology and sociology.

In this chapter, the PMS and the PMDD are first exposed from a biologicist model that understands disease as the state produced by an error in a biological mechanism or process. Afterwards, a review is made of those authors who have questioned and have tried to understand the concept from another point of view.

If all women experience physiological changes associated with ovulation, why during the twentieth century have they become intolerable?

## 20.2 History

Despite the physical and psychological changes associated with the menstrual cycle that have been recognized and described for thousands of years, it is not until the twentieth century when the concept of PMDD emerges as a clinical disorder.

Hippocrates in the fifth century BC observed that in the days prior to menses occurred mood swings in women, and Galen in the second century AD associated premenstrual hysterical reactions to a toxic uterine fluid which was eliminated through menstruation.

In general, the Hippocratics considered that the most likely cause of any disease in women was the retention of menses. Such retention could result in headaches, fever, hot flashes, etc. and in extreme cases, even loss of reason. This is reported in the Hippocratic treatise "On the diseases of virgins", which tells how in some virgins retained blood can move through the body causing in the first place a heart dysfunction and in severe states of the disease, stupor, delirium, and madness:

Women go crazy as a result of the acute inflammation, as a result of the putrefaction, they feel the desire to kill; as a result of the darkness that builds inside them, they feel terrors and fears, as a result of pressure on the heart they desire choking; because of the spoiling of their blood, their spirit, agitated and distressed, is perverted. In addition, the patient says terrible things. (The visions) command them to jump and throw themselves to wells or strangle themselves as if it was the better and was something useful....[3]

The Aristotelica, however, suggested that menses was itself a risk to weakness, with no therapeutic purpose whose only function would be restricted to procreation.

Although the connotations of menses for these classical philosophers are opposed, in both cases women will be at constant risk of being damaged by their own nature.

The first to use menses as a scientific basis to explain some of the female behaviour was the American neurologist Robert Frank. In 1931 he published a descriptive study conducted with 15 women that relate recurring physical, emotional and behavioural symptoms during the luteal phase which disappeared at the beginning of menses. He called to this set of symptoms as "premenstrual tension syndrome".

Frank proposed the existence of three groups of women based on the gravity of the symptoms:

A first group in which are included those women with mild symptoms, such as
fatigue, considered to be within normal limits. It could be considered women
with physiological changes without a medical connotation from our point of
view.

• Other group of women diagnosed of other clinical conditions who suffer variations in them during the premenstrual phase.

 Finally, a group with "premenstrual tension", considered as a severe emotional disorder which process with irritability, tension, emotional instability, and reckless behaviour [4].

In 1953, Green and Dalton suggest that the emotional tension was just a symptom of the many that compound this state and they replace the term "premenstrual tension" for "premenstrual syndrome" [5]. In her book, *The Premenstrual Syndrome*, Katharina Dalton reported the premenstrual syndrome is the most common endocrine disturbance, frequently meeting in general medical practice, due to the impact of cyclical changes and their effects on the patient and the family circle. It infiltrates in many medical specialties, so that the issue should be of great interest to psychiatrists, endocrinologists, gynaecologists, medical officers of the industry and the prison system. This author identifies an imbalance between oestrogen and progesterone during the luteal phase as the cause of the syndrome, proposing a treatment with progesterone during the premenstrual period, treatment of questionable reliability which acquired great popularity in the 1980s [6].

Finally, in 1987 DSM-III included PMDD in research criteria under the name of late luteal phase dysphoric disorder (LLPDD). After that, the DSM-IV TR criteria categorized it in the Appendix B "Criterion Sets and Axes Provided for Further Study" with its current name. The new DSM-5 considers that there are enough empirical evidences to consider PMDD as a new diagnostic category.

## 20.3 Epidemiology

Up to 90% of women of childbearing age experience at least one premenstrual symptom during their reproductive years. Symptoms include physical and emotional complaints and differ in their severity, duration, and frequency [7].

Different definitions exist for the categorization of premenstrual symptoms and syndromes, and epidemiological studies on their prevalence have produced varied results, depending upon the diagnostic criteria and methodology. Moreover, cultural differences in the reporting of premenstrual symptoms complicate to obtain an accurate prevalence of PMS, so that the PMS rate has been reported 10% in Switzerland and 98% in Iran [8].

Several population-based studies have been conducted to assess the prevalence of the most severe end of the premenstrual symptom spectrum, the PMDD, and have reported estimates between 3 and 8% [7].

## 20.4 Clinical Symptomatology

The main feature of the clinical representation of the PMS/PMDD is the recurring expression of symptoms during the late luteal phase of the menstrual cycle (approximately over 4 days) that ends in the first or second day of the onset of menses [9].

For most women, the symptoms are consistent between cycles and last an average of 6 days per month [10].

The literature has ascribed to PMS/PMDD over 150 symptoms. However, the number of symptoms that patients usually present are much more limited [11]. Most referrals are:

- Physical: swelling, breast tenderness, aches, headache, bloating/weight.
- Behavioural: sleep disturbances, appetite changes, poor concentration, decreased interest, social withdrawal.
- Mood: irritability, mood swings, anxiety/tension, depression, feeling out of control [12].

Some studies suggest that women with PMDD, especially those with more severe symptoms, have an increased risk of suicidal ideation [13].

Regarding the evolution, symptoms can start at any time from the onset of menarche and are usually maintained throughout the woman's reproductive life if they are not treated specifically [14]. However, it has been observed that some women experience more severe symptoms during the late reproductive years [15] and this condition has been associated with an increased risk of developing affective disorders during the transition to menopause [16]. The PMS/PMDD resolve completely after menopause and temporarily during pregnancy or during any menstrual cycle interruption [15–17].

Finally, no specific abnormalities were found in physical examinations of women with PMS/PMDD nor specific biochemical abnormalities in laboratory tests [18, 19].

## 20.5 Diagnosis

The subspecialties of psychiatry and gynaecology have developed overlapping but distinct diagnoses that qualify as a premenstrual disorder. The American Congress of Obstetricians and Gynaecologists (ACOG) includes psychiatric and physical symptoms in describing premenstrual syndrome (PMS). The American Psychiatric Association (APA) focuses predominantly on psychiatric symptoms in its diagnostic criteria for premenstrual dysphoric disorder (PMDD).

ACOG has defined PMS as a condition in which a woman experiences at least one affective symptom and one somatic symptom that cause dysfunction in social, academic, or work performance. To meet the DSM-5 criteria for PMDD, they must experience 5 of 11 physical, behavioural, or cognitive-affective symptoms, and at least 1 must be a key mood symptom. Mood symptoms include irritability, mood lability, depressed mood, or anxiety.

Establishing the timing of symptoms is essential. Other conditions, such as depression or anxiety, may worsen during the luteal phase, but these can be distinguished from PMS because they persist throughout the menstrual cycle. Migraines, anaemia, chronic pain disorders, rheumatologic disorders, endometriosis, irritable bowel syndrome, interstitial cystitis, primary and secondary dysmenorrhea, and

hypothyroidism may produce symptoms similar to PMS or PMDD and should also be considered. An accurate diagnosis requires a thorough history, physical examination, and prospective symptom evaluation. Diagnostic laboratory testing or imaging should be directed at ruling out alternative medical diagnoses.

Prospective questionnaires are the most accurate way to diagnose PMS and PMDD because patients greatly overestimate the cyclical nature of symptoms, when in fact they are erratic or simply exacerbated during their luteal phase. The Daily Record of Severity of Problems (DRSP) is a valid and reliable tool that can be used to diagnose PMS or PMDD. It is a daily log of symptoms that correlate with the diagnostic criteria for PMS and PMDD. Patients rate their symptoms through at least two menstrual cycles [20, 21].

## 20.5.1 Negative Impact of PMDD Symptoms in Functional Impairment

One of the criteria required by the current classifications for the diagnosis of PMDD is that symptoms must be severe enough to cause a significant deterioration in the quality of life, interfering with work, interpersonal relations, and/or social activities. Most women with PMDD diagnosis report a significant alteration in social adjusting and an increase of interpersonal difficulties and perceive a decrease in quality of life [22–25]. A study conducted with women from the United States, United Kingdom, and France has shown that a 30% of women reported a serious interference in family life, 17% interference in social life, and a 14% at work [23].

## 20.6 Etiology

Although the etiology of PMDD is unknown yet, there is consensus in recognizing its complex and multifactorial nature and involves biological, psychological, environmental, and social variables. The biological hypotheses are those that have attracted more research emphasizing the implication in the pathogenesis of certain central neurotransmitters and ovarian steroids.

#### 20.6.1 Female Sex Hormones

Since PMDD only affects women of reproductive age, it is supposed that female sex hormones play a causal role in the disorder. However, studies comparing the levels of progesterone, estradiol, follicle-stimulating hormone, luteinizing hormone (LH), prolactin, cortisol, testosterone, and dihydrotestosterone in women with and without premenstrual symptoms found similar levels in both cases [18, 19].

A commonly purported belief is that fluctuations in sex hormones across the menstrual cycle contribute to women's emotion processing and experience of negative affect such as irritability, nervousness, anger, depression, and anxiety.

However, a multisite longitudinal study on the association between mood disorders and sex hormone levels encompassing two consecutive menstrual cycles concluded that negative affect did not fluctuate across the cycle and there was no direct and uniform association between sex hormones and self-reported negative affect [26].

The deficits of progesterone metabolites (some of which have anxiolytic properties) and its receptors have been proposed as possible mediators of PMS/PMDD. Indeed, treatment of PMD with progesterone suppositories was at one point a popular treatment. However, evidence synthesized from randomized trials has not shown the efficacy of this treatment [27]. However, as it is already noted, progesterone concentrations are normal in women with PMS. Furthermore, although the results of the studies are contradictory, it seems that concentrations of progesterone metabolites also happen to be similar in women with PMS compared to control women [28].

Since women with PMS have normal levels of oestrogen and progesterone, it is postulated that they may have a greater vulnerability to normal hormonal changes that occur during the menstrual cycle and suggest that gonadal hormones are necessary but not sufficient to explain the etiology of the disorder.

The basis of this vulnerability could be in the interaction that occurs with other neurohormonal systems, including the renin-angiotensin-aldosterone system and the CRH as well as neurotransmitters of the central nervous system, particularly GABA and serotonergic systems [29, 30], as it is discussed below.

## **20.6.2 Neurotransmitter Systems**

Animal studies provide evidence that the cyclical fluctuations of oestrogen and progesterone in blood changes produce changes in opioid [31], GABA [32], and serotonin systems [20].

- · Beta-endorphins
- β-endorphin levels have been demonstrated to be lower in the luteal phase of the cycle in women suffering from Premenstrual Syndrome [33, 34]. This low level of endorphins is linked with lethargy, low mood, and emotional instability, all of which are symptoms typical of PMS sufferers [27].
- The beta-endorphin withdrawal hypothesis proposed that decreased levels of endogenous opioids were linked to PMS symptom expression and pain sensitivity.
- A study comparing women with PMDD and healthy controls during both the
  follicular and luteal phases found that during both cycle phases, women with
  PMDD had lower levels of cortisol and beta-endorphins, shorter pain thresholds
  and tolerance times, and higher blood pressure levels at rest and during pain testing [35].
- · Serotonin
- The serotonergic system has emerged as the most likely cause of PMDD and PMS, being the one which most research has risen.

• One of the pioneers in this field was Wirst, who shows that the levels of free tryptophan (an amino acid precursor of serotonin) had changes during the menstrual cycle, which correlated with plasma concentrations of oestrogens [36]. There is wide evidence in the literature suggesting that PMDD is caused by a deregulation in the serotonergic system in response to fluctuations of gonadal female hormones during the menstrual cycle. In fact, it has been shown that during the lutein phase, women with PMS have lower plasma levels of serotonin reuptake and lower minor recognition sites of this neurotransmitter [37].

- Several findings support this hypothesis. For example, the administration of L-tryptophan is more effective than placebo in treating premenstrual symptoms, including mood swings, dysphoria, irritability, and tension [38]. Also it has been referred that flenfluramina, which increases the release of serotonin and decreases its reuptake, produces significant improvement in PMS symptoms [39]. Besides, SSRIs are the most effective drugs for the treatment of PMDD. In fact, the administration of metergoline (a serotonin antagonist) in women treated with fluoxetine produce a recurrence of symptoms [40].
- The rapid onset of action of selective serotonin reuptake inhibitor suggests a mechanism of action different than serotonin reuptake inhibition. It has been demonstrated that SSRIs increase the level of central allopregnanolone in both rats and humans. Although the mechanism by which this occurs is not known, it has been proposed that it could implicate a direct stimulation of 3a-HSD, the enzyme that catalyses the reduction of 5a-DHP into allopregnanolone [41].

#### GABA

- Recent growing interest focuses on the neurosteroid allopregnanolone and its effect on the gamma-aminobutyric acid (GABA) system, one of the main inhibitory systems in the central nervous system. Allopregnanolone is a metabolite of progesterone implicated in mood disorders in both men and women. Allopregnanolone is a strong positive modulator of GABAA receptor, acting on a specific site of the receptor distinct from the site acted on by barbiturates, benzodiazepines, and alcohol, yet similarly to them, leading to increased receptor activity. Preclinical studies suggest that allopregnanolone mediates its own fluctuations as well as the fluctuations of progesterone, through modulation of subunits of GABAA receptor and receptor function.
- It is currently proposed that women with PMDD have reduced sensitivity at the GABAA receptor complex, at the allopregnanolone, as well as at the benzodiazepine site.
- A blunted response to stress has been reported in PMDD, and it has been proposed that a decrease in the expected increase in allopregnanolone in response to stress or reduced allopregnanolone-modulated GABAA receptor sensitivity impairs the ability of the hypothalamic-pituitary-adrenal axis to achieve homeostasis after stress. Dysregulated acoustic startle responses in women with PMDD suggest increased arousal in the luteal phase, which could be another reflection of dysregulated allopregnanolone function.
- In a randomized controlled trial (RCT), when the conversion of progesterone to allopregnanolone was blocked by dutasteride (a 5a-reductase inhibitor), PMDD

symptoms were significantly decreased, and there was no effect of dutasteride on the healthy controls. There is a hypothesis that the negative mood and anxiety symptoms of PMDD may be related to a paradoxic sensitivity to allopregnanolone. In a subset of women, when allopregnanolone levels increase (i.e. in the midluteal phase), the increase leads to elevated rather than decreased mood and anxiety symptoms [41].

- Glutamate
- For both symptomatic and non-symptomatic women, levels of the excitatory neurotransmitter glutamate fluctuate during the menstrual cycle. Luteal-phase levels of glutamate/creatine plus phosphocreatine in the medial prefrontal cortex are thus lower for all women. However, symptomatic women may have an increased sensitivity to such cyclical changes [35].

#### 20.6.3 Vitamins and Minerals

Attempts to determine if there are vitamin deficiencies in women with premenstrual symptoms have not been successful. It has also been suggested that women with PMS may have lower levels of intracellular magnesium during the menstrual cycle, but differences are not limited to the luteal phase [42, 43].

The potential role of calcium has been studied, and it has been reported that reduced calcium levels during ovulation are related to the luteal phase of the cycle. Serum vitamin D has also been shown to fluctuate during the menstrual cycle along with alterations in estradiol at ovulation and across the luteal phase in several, but not all of the studies. The results of studies assessing the association between PMS and vitamin D and calcium status have been inconsistent.

Recently, no significant association was observed between the menstrual bleeding pattern or the PMS symptoms with a vitamin D status [44].

## 20.6.4 Central Nervous System

The development of neuroimaging techniques has opened a new stage in the study of the biological alterations in mental disorders.

Through functional neuroimaging techniques, specifically SPECT, it is been discovered fluctuations of glutamate in the medial prefrontal cortex during the menstrual cycle in women with PMDD as well as in asymptomatic. Thus, there are lower levels during the luteal phase compared with the follicular phase ones. These variations in the levels of glutamate are probably due in part to hormonal changes that occur during the menstrual cycle, as we mention previously, being women with PMDD more sensitive to these changes produced during the menstrual cycle [45].

On the other hand, magnetic resonance studies revealed that during the premenstrual phase, the grey substance is relatively bigger in the anterior right hippocampus (right anterior hippocampus) and, at the same time, is relatively reduced in the right region of the right dorsal basal ganglia [46].

Functional magnetic resonance imaging (fMRI) studies have reported that PMS patients have dysfunctions of several brain regions, mainly including the frontal cortex, precentral gyrus, anterior cingulated cortex, temporal cortex, and precuneus, and a recent study has investigated about abnormal thalamocortical connectivity in PMS patients [47].

A voxel-based morphometry (VBM) study reported that PMS patients had morphological change of thalamus and abnormal thalamic-prefrontal structural covariance pattern by structural MRI [48].

The autonomic nervous system has also been extensively studied in the premenstrual syndrome. Classic studies demonstrated that the parasympathetic nervous system activity in women with PMDD was smaller in the luteal phase than in the follicular phase. More recently, some studies have managed to establish a relationship between the decline in autonomic nervous system activity and PMS, through evaluation heart rate variability and hormone levels in the follicular and luteal phase. Results indicate that there were no changes in the autonomic nervous system activity in the control group, whereas the group of women with PMS showed a significant decrease in the luteal phase, being more marked in women with PMDD [49, 50].

Regarding electrophysiological abnormalities, women with PMS have a lower incidence of delta activity and a higher incidence and amplitude of theta waves during electroencephalographic studies [51].

## 20.6.5 Psychosocial Factors

Psychosocial models consider that PMDD is a syndrome influenced by Western culture where most women have negative beliefs about menses. In this culture, menses has been related with affective symptoms as well as having been always associated to negative connotations. Due to this, they suggest that women have ended up interpreting negatively normal physiological changes that occur during the menstrual cycle [52].

The role that psychosocial factors have on the etiology of PMDD has been very poorly investigated. There are some studies which refer that attributional and coping styles play a central role in the SPM [53]. For example, Blake [54], who developed a cognitive therapy for the treatment of PMDD, suggests that premenstrual symptoms are caused by negative attributions women make about symptoms. They perceived a loss of control over them and use an emotion-focused coping style, which leads them to feelings of anger and depression and increases negative thoughts in relation to symptoms.

#### 20.7 Risk Factors

Factors that have been associated with an increased risk of PMDD are:

## 20.7.1 Age

Although this disorder can appear at any time from the onset of menarche until the end of the reproductive cycle, research shows that the risk is higher in young women from 25 to 35 years old. This is exemplified by a study conducted with a sample of women aged 18–44 years old which found that the older age group (35–44 years) was the least likely to experience premenstrual symptoms (4.5%) compared with the group of 18–24 (8.7%) and 25–34 years (10.4%) [55].

It is not clear if premenstrual symptoms change with age. Most of the women seeking treatment for PMDD are in the first half of the fourth decade of his life but recognize the appearance of the symptoms in their teenage years. This suggests that the symptoms tend to become more severe over time until eventually disappear with menopause [56]. In contrast, a prospective study of a large sample of adolescent and young adults reported no change in PMDD prevalence over a 2-year period [57].

Although over time it has maintained the belief that women with irregular menstrual cycles have a higher incidence of PMS/PMDD, the fact is that recent studies have found no such difference [58].

Risk does not differ among various premenopausal age groups [57].

#### 20.7.2 Past or Current Psychiatric Disorders

Women with a history of mood disorders, anxiety disorders, personality disorder, and substance abuse disorder have a higher incidence of severe premenstrual symptoms [59]. Specifically, PMDD is usually associated with a history of depression [15] and anxiety disorders [60].

On the other hand, some studies show that during the premenstrual period, it can exacerbate certain psychiatric symptoms such as obsessive-compulsive behaviour, increased alcohol consumption, a higher rate of suicide, or schizophrenic symptoms [61].

## 20.7.3 Heritability and Familial Aggregation

Family and twin studies suggest a genetic influence in premenstrual syndromes, but not all studies agree.

Studies with twins have generally shown a higher concordance rate in monozygotic twins versus dizygotic twins, although it is not clear if the genetic vulnerability is for premenstrual symptoms itself or for some other characteristic, which is genetically determined [62].

The heritability has been estimated between 30 and 80% according to different studies. Familial risk differs for PMS and common mood and anxiety disorders [63].

#### 20.7.4 Candidate Gene Studies in PMDD

Candidate gene studies for PMDD have primarily focused on genes previously associated with a risk for major depressive disorder, including those coding for the serotonin transporter (SERT), catechol-O-methyl transferase (COMT), monoamine oxidase (MAO), and brain-derived neurotrophic factor (BDNF). Several studies have also focused on polymorphisms of the genes for the oestrogen receptors (ESR1 and ESR2), given the hypothesized hormonal trigger:

- SERT Gene. The candidate gene best studied in PMDD is the serotonin transporter gene (SERT). Overall, the preponderance of the evidence does not support an association between SERT polymorphism and PMDD.
- COMT Gene and BDNF Gene. Results to date are negative.
- ESR Genes. There have been four studies with PMDD and ESR genes, two for each subtype, with conflicting results for each. Huo and colleagues found that four different single nucleotide polymorphisms (SNPs) in intron 4 of ESR1 were more likely to occur in subjects with PMDD versus healthy controls. They also studied ESR2 and did not find an association. The same group published a second study that did not find an association between PMDD and ESR1 but did find an association between certain psychological traits in the women with PMDD and SNPs in ESR1. Finally, Takeo and colleagues studied 51 postmenopausal women and found an association between the short-short (ss) genotype of the ESR2 and a history of PMS. However, this was based on a retrospective diagnosis determined by research assistants rather than clinician-based diagnosis or use of validated scales. It remains unclear if polymorphisms of the ESR genes underlie the pathogenesis of PMDD [64].

## 20.7.5 Healthy Behaviours

Smoking has been associated with an increased incidence of [65]. Women smokers are 2.1 times more likely to suffer from premenstrual symptoms than non-smokers. Furthermore, this risk is much higher for women who started smoking during adolescence [66].

Body mass index (BMI) has also been associated with PMS, finding a three times higher risk in women with a BMI greater than or equal to 30 [67].

It has also been described a strong linear relationship between BMI and risk of premenstrual syndrome, with each 1 kg/m² increase in BMI associated with a significant 3% increase in PMS risk. BMI was also associated with specific symptoms [68].

Dietary factors are shown to moderate the risk of PMS [69].

#### 20.7.6 Educational Level and Work Situation

Cohen et al. found an association between PMDD and lower educational level. They also reported that women who do not work outside home were less likely to have the disorder [15]. Krantz and Ostergren's results [65] suggest that, in addition of the symptomatology increment observed in unemployed women, those who are exposed to high job strain suffered it too. Despite this date, Potter et al. [70] with a sample of 2863 French women do not find associations between the educational level, laboral status, and PMDD.

To sum up, studies have not found consistent associations between sociodemographic variables and PMDD. Due to the diverse results, the role of sociodemographic variables as risk factors of PMDD is unknown yet.

#### 20.7.7 Racial Disparities

A US population study using retrospective surveys described that black women were significantly less likely than white women to experience PMDD and premenstrual symptoms in their lifetimes, independently of marital status, employment status, educational attainment, smoking status, body mass index, history of oral contraceptive use, current age, income, history of past-month mood disorder, and a measure of social desirability [71].

#### 20.7.8 Stressful Events

Research has shown complex interactions between the impact of traumatic experiences and the reproductive lifecycle in women. Sexual abuse history is associated with diverse physical health problems and is also associated with affective disorders.

Evidence suggests that psychosocial factors including exposure to early life emotional, physical, and sexual abuse increase the risk of PMS [72].

A study evaluated the prevalence of sexual abuse history among women seeking treatment for severe premenstrual syndrome and found at least one attempted or completed sexual assault was reported by 95.2% of the women although typically ranged from 32 to 50% [73].

Several studies have investigated the association of psychosocial risk factors and physiopathology of premenstrual disorders.

Based on the evidence that traumatic experiences sensitize stress response systems, and that these systems are regulated by ovarian steroids, the hypothesis has been raised that a history of abuse provides a context in which within-person elevations of ovarian steroids estradiol and progesterone prospectively predict daily

symptoms. The results were that in women with a history of physical abuse, cyclical increases in progesterone predicted greater mood, and interpersonal symptoms 3 days following that sample and in women with a history of sexual abuse, cyclical increases in estradiol predicted greater anxiety symptoms 3 days following that sample [74].

About the comorbid relationship between PTSD and premenstrual dysphoric disorder, it is not clear. Some research claims that it seems that trauma and PTSD are independently associated with PMDD and premenstrual symptoms [75]. Other studies argue that experience of premenstrual symptoms may be an important mechanism involved in increasing vulnerability for PTSD symptoms [76].

### 20.8 Treatment

There are numerous original articles pertaining to the treatment of premenstrual disorders, but clear clinical guidelines are not yet available. The therapeutic options available for the treatment of PMS and PMDD can be classified into nondrug interventions and pharmacological approaches.

## 20.8.1 Lifestyle Modifications

The ACOG recommends changes in daily life as the first choice of treatment for PMS [77]. However, the most used treatment is the pharmacological one with SSRIs or oral contraceptives. The ACOG recommendations are often ignored due to the absence of information about the effectiveness of behavioural interventions to produce long-term changes in lifestyle and are typically reserved for mild cases of PMD. The observed results in this type of treatment occur in a longer period of time than in the pharmacological intervention.

There is some evidence to indicate the effectiveness of aerobic exercise [78, 79] and relaxation [80] as a treatment for PMS/PMDD. Correlational studies show a positive correlation between the maintenance of aerobic exercise and the increments in quality of life reports QOL [81, 82]. However, a qualitative review on exercise and PMS symptomatology that included only interventional studies revealed minimal evidence to support the recommendation [83].

Caffeine, sugar, and alcohol are associated to an increase in the symptoms associated with PMS [84]. However, dietary interventions, such as reducing sugar intake and eat small but frequent meals, have little scientific evidence to support their effectiveness.

## 20.8.2 Supplements and Herbal Treatments

Supplements. Calcium supplements have been shown to decrease both negative mood symptoms as well as somatic symptoms. The data are less compelling for

vitamin B6 supplementation with marginal improvement in symptoms. There is limited data on vitamin E for treatment of PMS/PMDD symptoms. Smaller studies have indicated that it may alleviate symptoms, but further data are needed to support it as an effective treatment [25].

Minerals. The therapeutic efficacy of magnesium has been investigated, but no significant effects were found on mood symptoms with respect to placebo. Chromium supplementation was found to reduce mood disturbances in a small study [85].

Herbal Treatments. A growing body of literature is supporting the use of *Vitex agnus-castus* (chasteberry) for alleviating PMS and PMDD symptoms. Chasteberry was superior to placebo in relief of breast fullness, headache, irritability, anger, and mood lability. *V. agnus-castus* has also been shown to be as effective as fluoxetine in treatment of PMD/PMDD symptoms [25].

### 20.8.3 Cognitive Behavioural Therapy

CBT is the most extensively studied psychological treatment. CBT has been found to be beneficial to improve coping skills to tackle physical and psychological discomforts associated with PMS and PMDD. CBT has also showed some positive results as a maintenance strategy, although its combined use with pharmacotherapy (selective serotonin reuptake inhibitors) does not seem to produce additional benefits. The paucity of well-controlled studies for CBT and the lack of diagnostic rigour (severity, psychiatric comorbidities) in some of these studies are limiting factors for greater acceptability of CBT as a first-line treatment, along with other challenges such as costs and limited access to well-trained professionals. Challenges of access may be mitigated should emerging data on the use of remote, Internet-based cognitive behavioural therapies ultimately prove to be effective [86].

## 20.9 Pharmacological Approaches

### 20.9.1 SSRIs

Selective serotonin reuptake inhibitors (fluoxetine, sertraline, paroxetine, and venlafaxine) have proven to have safety profile [87] and their effectiveness in the treatment of PMDD in clinical trials [88] as in systematic reviews [89, 90].

SSRIs can be administrated daily or specifically during the luteal phase. Many women prefer this treatment mode [16]. Intermittent therapy starts in the 14th day of the cycle and continues until the onset of menses. It can maintain some days more if the symptoms persist during menses. This modality of treatment has the advantage of being cheaper and has fewer side effects. While individual trials suggest the efficacy of this approach [87, 91, 92], a meta-analysis of 29 studies reported that the intermittent dosing was less effective than the continuous therapy [16].

The rates of success of the SSRIs are high, from 60 to 70% of the patients respond positively. Women who do not response, between 30 and 40%, can benefit from the administration of a second SSRI or made daily therapy [88].

Generally, side effects are well tolerated by patients. Nausea is a common symptom and decreases after the first few days of treatment not to return even in the intermittent treatment modality [89]. Sexual effects (decreased libido and anorgasmia) persist throughout the treatment period but not during periods without it [90]. The discontinuation symptoms may occur if the treatment ceases abruptly, not occur in the intermittent one, indicating that 2 weeks are insufficient to provoke them [87].

Other antidepressants that inhibit serotonin reuptake inhibitors (but are not SSRIs) and have proven somewhat effectiveness for PMDD include clomipramine [93, 94] (administered throughout the menstrual cycle or only during the luteal phase), nefazodone [95], and venlafaxine [96], a drug that selectively inhibits the reuptake of serotonin and norepinephrine.

## 20.9.2 Anxiolytics

Anxiolytics that have been evaluated for the treatment of premenstrual syndrome include alprazolam and buspirone.

The therapeutic recommendation is to add alprazolam to treatment with SSRIs at low doses (0.25 mg three or four times a day) when treatment with SSRIs has been ineffective or not reduced completely all symptoms [87, 97–99]. It is considered a second treatment option because it exists a risk of addictive use.

## 20.9.3 Combined Oral Contraceptives

The treatment with oral contraceptives (OC) for the PMDD despite being very spread in the clinical practice is not supported by strong empirical evidence. The placebo-controlled trials are limited, and the first results were negative [100, 101]. However, it seems that OC treatment with fewer hormone-free days could be more effective [102]; the reduction in the number of hormone-free days results in fewer symptom [103].

The use of OC drospirenone plus ethinyl estradiol is promising [104–106]. A double-blind, randomized, placebo-controlled, cross-over design study demonstrated significant improvement in both mood and somatic symptoms as recorded on the DRSP when compared with placebo [107].

### 20.9.4 Hormone Treatment

If the treatment with SSRIs or oral contraceptives has not been effective or is not well tolerated, GnRH agonist with oestrogen-progestin add-back therapy is recommended.

The goal of hormone therapy is to suppress the hypothalamus-gonadal cyclicity that triggers the symptoms. It is important to take into account that GnRG agonists administered alone produce hypoestrogenism (hot flashes and loss of bone mineral density).

Studies report the effectiveness of the maintained administration of leuprolide when it is continuously added low doses of oestrogens and progestin [108–110]. This modality of combined treatment prevents the loss of bone density [111, 112].

However, the necessary use of cyclic or continuous progestin in add-back formulations can precipitate recurrence of PMS/ PMDD symptoms. In such cases, a levonorgestrel-releasing intrauterine device could be considered. Although GnRH agonists are effective treatment for PMS/PMDD, they should be used as third-line therapy and limited to a short course spanning no more than 3–6 months [25].

## 20.9.5 Surgery

Surgery is reserved for refractory cases with severe and very disabling symptoms. Three observational studies found that bilateral oophorectomy, usually along with hysterectomy, are effective for these patients [113–115]. But it is necessary further research in this area.

## 20.10 The Untold Story

Many authors question the validity of the premenstrual syndrome and how it became a treatable disease. There are authors who explore beyond the medical model, with contributions from anthropology, politics, philosophy, and sociology, because it is the only way it is understood the female suffering, in all its amplitude.

Several experts have linked premenstrual syndrome to the old descriptions of hysteria. Rodin affirms that the current disease category of PMS is a modern recreation of hysteria where women's bodies were thought to cause all sorts of unusual behaviours [116].

History is full of taboos and negative stereotypes about menstruation. For example, Eskimo believes that contact with a menstruating woman can lead to bad luck in hunting. Among the Habbe of Western Sudan, a man whose wife is menstruating does not undertake any hunting. In Nepal, *chhaupadi* is a practice that forces women to stay out of the house during menstruation to preserve the purity of the home, often in shelters for animals.

In some cultures, menstruation has been portrayed as an evil spirit that invades women of childbearing age once a month [117].

Premenstrual syndrome has also been compared with neurasthenia (another epidemic of vague and idiosyncratic symptoms). Like PMS, neurasthenia was connected to the tensions of the fast pace of modern life. It was first described as "American nervousness" caused by "mental and physical fatigue with organic causes beyond the diagnostic capacities of nineteenth-century medical science".

The pain of childbirth and dysmenorrhea or the strain of intellectual activities were thought to be largely responsible for neurasthenia in women, who were advised to stay at home, rest, and avoid reading, writing, or studying. Today, women thought to have PMS are advised to slow down the busy pace of their lives, although this can harm their professional careers: to tell their bosses about their PMS, not to schedule important business meetings or travel during the luteal phase [118].

In 1931, American gynaecologist Robert Frank published scientific studies about a condition he called "premenstrual tension". He described that some of her patients felt tense and irritable, emotionally unstable, and associated with "foolish and ill-considered actions". After the onset of the menstrual flow, the symptoms disappeared, and Frank described a hormonal origin.

Thus, the ancestral belief that women were unpredictable and fragile had a scientific basis, menstruation. Frank replaced religious or superstition elements with those that came directly from the world of medicine.

The primary way in which new ideas or diseases achieve recognition in modern society is for scientists or physicians to call them real. This is what happened to PMS in the twentieth century: PMS became real as a medical diagnosis and condition [117].

The premenstrual syndrome as a medical disorder began to receive constant attention when Katharina Dalton, a British endocrinologist, began to investigate it in the 1950s and, during the following years, published books and journal articles for professionals but also for the general population.

Many authors have not overlooked that Dalton published her first works when women were encouraged to become full-time housewives so that there would be more jobs available for veterans of World War II. In addition, Frank's publications were carried out during the Great Depression. The premenstrual syndrome was a medical and scientific reason to keep women away from the workplace and maintain the patriarchal model, which is sustained through the maintenance of women at home.

By the mid-1980s, when Ronald Reagan was the US President and Margaret Thatcher was a UK Prime Minister, and there was a backlash against feminism in both countries, PMS had become established in North American culture. The establishment was greatly facilitated by two sensational murder trials in the United Kingdom in which the courts accepted PMS as a plea of diminished responsibility. One of them, who was arrested for stabbing a co-worker, had a long history of mental illness and a history of great violence; the other, which today would probably be described as a post-traumatic stress disorder, was a battered woman who murdered her lover by running over him with the car after an argument. The trials received extensive media coverage, and the press introduced the concept of premenstrual syndrome, and with it, the notion that kind and quiet women can become dangerous criminals if they are left at the mercy of their hormonal fluctuations. One of the attorneys described his client as having a typical case of "Dr Jekyll and Mr Hyde" since without the injections of progesterone to control their premenstrual symptoms, the "hidden animal" in it would have no choice but to come to light [118].

A short time later, a committee of psychiatrists from the United States defined the late luteal phase dysphoric disorder (LLPPD) and proposed its incorporation into the DSM-III-R. The feminist community protested; they objected to this diagnosis both from the scientific point of view and from the politician; despite the protests it was included in the appendix of the diagnostic manual, along with other categories that should continue to be studied. Part of the controversy surrounding this label is centred around the sex-specific nature of this diagnostic category. Men also experience fluctuations in gonadal hormone levels which affect their psychological and behavioural functioning. Fluctuations in mood and behaviour are treated as aberrations to be medically managed when they occur in women, while similar changes in men are not publicly and medically scrutinized [2].

To understand scientific progress, Solomon introduced the idea of decision vector. A decision vector is any factor that influences the outcome of a scientific decision, such as accepting or rejecting a theory. She distinguished between empirical and nonempirical decision vectors. An empirical decision vector is any factor that leads scientists to prefer theories with empirical success. Nonempirical decision vectors are any other factors leading a community to prefer one theory (or diagnostic construct) over another. These include economic, social-political, and ethical considerations, as well as psychological factors such as conservatism and peer pressure [119].

For example, those who fear the empowerment of women may prefer that the PMDD appear in the diagnostic manual. During the debate about whether to include LLPPD in the DSM, Paula Caplan was interviewed by a Canadian reporter who wanted to write a story about the debate, but finally, her editor thought no one would want to read it. Soon afterwards Kim Campbell was elected head of the Progressive Conservative Party, and it looked like she would become Canada's first woman Prime Minister. The editor instructed the reporter to complete the LLPPD story since the notion that women behave irrationally once a month would hurt Campbell's chances of political success. Each time women make substantial gains in political or social power; medical or scientific experts step forward to warn that women cannot go any farther without risking damage to their delicate physical and mental health [118].

Because there is no established cause or cure for PMS, it has never been clear which experts are best suited to treat women with premenstrual symptoms. Most PMS clinics have been established by gynaecologists, endocrinologists, nurse practitioners, or nutritionists. With the vast majority of women of reproductive age convinced that they suffered from PMS at least occasionally and the inclusion of PMDD in the DSM, it was the opportunity to find a psychotropic drug that could be applied to the different symptoms that constituted the disease. Chrisler and Caplan describe in detail the strategy used by the Eli Lilly laboratory because with the patent on Prozac due to expire soon, it was essential to demonstrate the effectiveness of the drug in a disease different from depression so that distribution can be avoided of generic forms. They also described the politics of renaming, as Eli Lilly repackaged Prozac in pink and purple colours and renamed it Sarafem. Sarah was the ideal wife of the Old Testament, and the combination of her name

with "fem", a shorthand term for feminine behaviour, suggests a transformation, from a real woman who is angry to the stereotypical ideal of femininity, to a woman of "serene behaviour". Eli Lilly's advertising slogan for Sarafem, "It's like the woman you are". An energetic marketing campaign was developed for Sarafem. The first television ad for Sarafem showed a woman frantic because she could not extricate a shopping cart from a row of carts, and another showed a woman looking furious at a man who looked so calm and caring that the message was crystal clear that he could not have done anything to provoke her anger. The Sarafem ads do not appear to target the small minority of women the American Psychiatric Association says have PMDD. The daily frustrations and irritations of life portrayed as symptoms of a psychiatric disorder [118].

PMS has been theorized to be a culture-bound syndrome. A culture-bound syndrome involves a constellation of symptoms categorized by a given culture like a disease and the etiology of which symbolizes core meanings and reflects the preoccupations of the culture; the diagnosis and treatment are dependent upon culture-specific technology and ideology. Further, the definition holds that, while such symptoms may be recognized elsewhere, they will not be categorized as the same disease, and treatment which is successful in one cultural context will not be seen as successful in another. The reality of such syndromes is the result of a negotiation between those who treat it and those who suffer from it, even though symptoms may exist apart from the negotiated reality [120].

Johnson argues that a culture-bound syndrome can serve as a symbolic mechanism for both structural maintenance and change in a particular society. PMS appearance follows on the heels of an unprecedented alteration of the status and roles of women in the social structure. In that specific time in the history of Western industrial culture, women were placed in a role conflict and were expected to be productive and to be reproductive. The author explains how PMS serves to answer this role conflict of productivity and generativity by simultaneously and symbolically denying the possibility of each: in menstruating, one is potentially fertile but obviously nonpregnant; in having incapacitating symptomatology, one is exempted from normal work role expectations. With PMS, women can be seen as "victims" who did not "choose" to be sick.

From the point of view of social change, the PMS solidifies the position of women in the changing social structure of Western industrial culture. Throughout history, women have been considered delicate, fragile, emotional, etc. Nevertheless, the fact those women's work roles have become central to the mode of production demands liberation from these constraints. PMS defines women as potentially irresponsible only some of the time, and asserting those irrational thoughts and incapacitating physical symptoms relates to a medically treatable entity. By defining women as potentially "in control" of heretofore devalued constitutional characteristics, PMS "negotiates" access to power in a way which indirectly legitimates the changing status of women without directly threatening or destroying the structural status quo [120].

Figert explains how the PMS has a very real image in the popular culture of something that drives women crazy once a month and relates a wide variety of jokes

and anecdotes from women as subject to their raging hormones. These are common on television and in movies. For example, an episode of Roseanne (a popular American show of the 1990s) depicted a day in the life of the entire family affected by Roseanne's (the wife and mother) rapid mood swings, emotional outbursts, and unpredictable behaviours. Hollywood romances are also not immune from PMS attacks. People magazine reported in 1994 that when Melanie Griffith filed for divorce from Don Johnson, and then withdrew the petition a day later, it was "an impulsive act that occurred during a moment of frustration and anger" and attributed to Griffith's PMS [117].

This author also reviews some popular jokes about PMS: "What is the difference between a pit bull and a woman with PMS? A pit bull doesn't wear lipstick" and "What is the difference between a woman with PMS and a terrorist? You can negotiate with a terrorist". Popular culture plays an important role in establishing and maintaining beliefs and most of these jokes promote an extremely negative image of women.

Another interesting line of research is to study the beliefs and attitudes of women towards the PMS label. White women are the majority who have sought services at PMS clinics and most of the women depicted in the cultural products about PMS. African-American women are apparently reluctant to seek medical services, and the scarcity of articles about PMS in magazines that target Black women suggests that the resistance to the label of PMS may be greater in some ethnic and socioeconomic groups than in others [120].

In a study of the year 1995, the views of women patients recruited from a PMS clinic were very similar to those presented in popular culture. They believed that PMS is biologically based, and they rejected situational attributions for their distress, "everything else in my life is fine, it's just my PMS". In more recent studies of community samples of women with and without PMS, there is evidence of more ambivalence and some resistance. Women with negative attitudes towards menstruation were likely to consider PMS to be an appropriate label for their personal experience and to believe that women's symptoms are not taken seriously without a medical explanation. Women with more positive attitudes towards menstruation were more critical of the label PMS, even though most of them said that they did experience it to some extent.

The application of the PMS label to the self may be a form of self-handicapping, that is, the setting up of insurmountable (or nearly so) obstacles to success so that the inevitable failure can later be attributed to the obstacles rather than to one's own lack of effort or ability. As soon as one's PMS is known, it provides an excuse for an emotional outburst, careless mistake, or error in judgement [120].

Of the vast array of symptoms that are said to characterize PMS, feelings of anger, irritability, and a sense of being out-of-control appear to be the most frequent and the most problematic for the women themselves. This faulty "emotion management" is highly undesirable because it disrupts the accepted gender-role script. Because the overt expression of anger is incompatible with the accepted norm of a "healthy" feminine personality, PMS has become an acceptable mode of expressing women's distress.

By containing her anger, dissatisfaction, and feelings of impotence throughout the month, and deferring their expression to one particular time of the month, women can give voice to their legitimate discontent without disturbing the acceptable image of the "good woman" and without losing their "feminine allure". In this way, the artificial dichotomy between the "bad woman" and the "good woman" is retained, and little or no change need be affected to remove the sources of women's distress or to reconceptualize our notions of femaleness [2].

In addition to all the above, research on the PMS has been troubled by a series of methodological flaws.

Early critics point to inconsistencies in the very definition of PMS. Since her initial discovery of PMS, Dalton refined the definition and, consequently, increased the time frame during which particular symptoms can be attributed to premenstrual syndrome.

The occurrence of symptoms does not, according to her definition, have to be restricted to the few days prior to menstruation, and PMS may be diagnosed whenever there is a pathological variance in levels of oestrogen and progesterone during the cycle, despite the problem of determining the pathological variance. Dalton's definition became progressively less precise and more inclusive. From being restricted to the few days prior to menstruation to incorporating any "pathological variation" in hormonal levels, PMS can conceivably include approx. 17 days out of each cycle. The fact that there is disagreement about exactly what PMS is, it does not make it surprising that studies are also impossible to compare [116].

Even today, there is no standard definition of PMS; there is little agreement on how many symptoms must be experienced or how severe the symptoms must be in order to be considered PMS. All these affect the estimates of the prevalence of premenstrual symptoms. Furthermore, not all women experience the same symptoms, and any woman's experience may vary from one cycle to the next. It is important to add that the concept of PMS has become so ubiquitous in popular culture since 1980 that the results of the surveys have undoubtedly been affected by a response bias in the direction of the stereotype of the premenstrual woman [118].

Another issue that has received numerous criticisms are the standardized questionnaires that have been used for the diagnosis. This type of standardized retrospective questionnaire is designed in accordance with the experimenter's conception of what symptoms constitute PMS. The questionnaire is closed-ended and focuses on negative mood and behavioural changes. Consequently, any premenstrual experience that is at variance from the one offered by the questionnaire is impossible to detect [116]. Women also report cognitive, behavioural, and psychological changes during the premenstrual phase that they welcome and view as positive, such as bursts of energy and activity, increased creativity, increased sex drive, feelings of affection, increased personal strength or power, and feelings of connection to nature or to other women. These premenstrual changes are rarely mentioned in the professional or popular literature because they do not fit into the conceptualization of the perimenstruum as a time of illness and dysphoria [118].

In recognition of the inherent biases of standardized retrospective questionnaires, many PMS researchers have adopted the use of a "calendar" or "diary". Every day

over a 3-month period, women are directed to indicate on the calendar whether if they experience any of the listed possible changes or not. Although this method of diagnosis adopts a prospective approach and is relatively open-ended compared to the standardized retrospective questionnaire, most options available on the calendar are negative. Thereby, women's reports of their menstrual experience become reproductions of the medical description of PMS [116].

An interesting and robust phenomenon in studies of menstrual cycle effects is that premenstrual participants expect to perform worse than they actually do on cognitive tasks. An example is a classic experiment, in which Ruble (1977) led some women to believe that they were premenstrual when they were not and others to believe that they were not premenstrual when they actually were. The women who believed they were premenstrual reported more symptoms than did those who believed they were not. The cultural expectations encourage women to attribute their unhappiness and difficulties to internal (i.e. biochemical) rather than external (e.g. stress, discrimination, harassment, abuse) causes [118].

The most serious of methodological flaws is the inability of most researchers to ascertain which phase of the menstrual cycle their participants actually are in at the time that the dependent variable is measured, they do not take into account that not all menstrual cycles have the same length and they assume that all menstrual cycles include ovulation. Life stress can alter the menstrual cycle length and anovulatory cycles are not uncommon. If there is no ovulation, there is no true luteal phase.

And finally, menstrual cycle research is one of the few areas in the behavioural sciences in which women comprise the majority of those studied. Inherent in the design of most menstrual cycle studies is the unfounded assumption that only females experience cyclic fluctuations in affect, performance, and symptomatology. The exclusion of males as a control group precludes the examination of sex and gender [118].

Unfortunately, the rapid expansion in biomedical understanding in Western culture has created a reductionistic focusing of our attention on the biological aspects of symptom complexes. We strive to discover the biological "reality" of PMS, without examining the cultural forces which are attendant in the process of creating that reality. We are willing to see culture-bound syndromes in other cultures when we cannot readily understand their symptom complexes in biomedical terms. Yet we unquestioningly treat our own problematic syndromes, such as PMS, as "real", striving constantly to find physiological correlates of symptoms [5]. Retaining the PMS label is not only likely to be damaging to women medically, socially and politically, but that it may also preclude potentially fruitful scientific inquiry into the normal cyclical fluctuations associated with menstruation [2].

García Porta [6] suggests that it could be more appropriate to talk about the premenstrual or perimenstrual experience instead of PMD. This does not deny the experience itself, although it would exclude it as an expression which defines a pathological state. It has been emphasized the role that reproductive health education can have in order to change the social construction made about the PMS/PMDD. Apart from that, if biomedicine was opened to social disciplines such as anthropology, sociology, history, and gender studies and their qualitative

methodology, it could clarify the context and meaning of too many of these phenomena. Only through an approach like this, women could be active agents trying to make sense of their own experiences [6].

### References

- 1. Schechter D. Estrogen, progesterone, and mood. J Gend Specif Med. 1999;2(1):29–36.
- 2. Gurevich M. Rethinking the label: who benefits from the PMS construct? Women Health. 1995;23(2):67–98.
- 3. Jensvold MF, Dan CE. Psychological aspects of women's health care: the interface between psychiatry and obstetrics and gynaecology. Washington, DC: American Psychiatric Publishing; 2001.
- 4. Richardson J. The premenstrual syndrome: a brief history. Soc Sci Med. 1995;6(41):761-7.
- 5. Dalton K. El Síndrome Premenstrual. Proteo: México; 1967.
- García Porta M. Síndrome premenstrual: Aproximación crítica. AIBR Revista de Antropología Iberoamericana [Internet]. 2006 [cited 2013 June 25]; 1(1):80–102. http://www.aibr.org/antropologia/01v01/articulos/010105.pdf.
- Dennerstein L, Lehert P, Heinemann K. Epidemiology of premenstrual symptoms and disorders. Menopause Int. 2012;18(2):48–51.
- 8. Sattar K. Epidemiology of premenstrual syndrome, a systematic review and meta-analysis study. J Clin Diag Res. 2014;8(2):106–9.
- O'Brien PM, Bäckström T, Brown C, et al. Towards a consensus on diagnostic criteria, measurement and trial design of the premenstrual disorders: the ISPMD Montreal consensus. Arch Womens Ment Health. 2011;14:13–21.
- 10. Yonkers KA, O'Brien PM, Eriksson E. Premenstrual syndrome. Lancet. 2008;371(9619):1200–10.
- 11. Freeman EW, Halberstadt SM, Rickels K, et al. Core symptoms that discriminate premenstrual syndrome. J Womens Health (Larchmt). 2011;20(1):29–35.
- 12. Freeman EW. Premenstrual syndrome and premenstrual dysphoric disorder: definitions and diagnosis. Psychoneuroendocrinology. 2003;3:25–37.
- 13. Pilver CE, Libby DJ, Hoff RA. Premenstrual dysphoric disorder as a correlate of suicidal ideation, plans, and attempts among a nationally representative sample. Soc Psychiatry Psychiatr Epidemiol. 2013;48(3):437–46.
- Rapkin AJ, Winer SA. Premenstrual syndrome and premenstrual dysphoric disorder: quality of life and burden of illness. Expert Rev Pharmacoecon Outcomes Res. 2009;9(2):157–70.
- Cohen LS, Soares CN, Otto MW, et al. Prevalence and predictors of premenstrual dysphoric disorder (PMDD) in older premenopausal women. The Harvard Study of Moods and Cycles. J Affect Disord. 2002;70:125.
- Freeman EW, Sammel MD, Rinaudo PJ, Sheng L. Premenstrual syndrome as a predictor of menopausal symptoms. Obstet Gynecol. 2004;103(5 Pt 1):960–6.
- Di Giulio G, Reissing ED. Premenstrual dysphoric disorder: prevalence, diagnostic considerations, and controversies. J Psychosom Obstet Gynaecol. 2006;27(4):201–10.
- 18. Andersch B, Abrahamsson L, Wendestam C, et al. Hormone profile in premenstrual tension: effects of bromocriptine and diuretics. Clin Endocrinol (Oxf). 1979;11:657.
- Taylor JW. Plasma progesterone, oestradiol 17 beta and premenstrual symptoms. Acta Psychiatr Scand. 1979;60:76.
- World Health Organization. Mental health: new understanding, new hope. Geneva: Halbreich; 2001.
- Hylan TR, Sundell K, Judge R. The impact of premenstrual symptomology on functioning and treatment-seeking behaviour: experience from the United States, United Kingdom and France. J Womens Health Gend Based Med. 1999;8:1043

  –52.

- 22. Kuan AJ, Carter DM, Ott FJ. Distress levels in patients with premenstrual dysphoric disorder. Can J Psychiatr. 2002;47:888–9.
- 23. Campbell EM, Peterkin D, O'Grady K, Sanson-Fisher R. Premenstrual symptoms in general practice patients: prevalence and treatment. J Reprod Med. 1997;42:637–46.
- 24. Hofmeister S, Bodden S. Premenstrual syndrome and premenstrual dysphoric disorder. Am Fam Physician. 2016;94(3):236–40.
- 25. Appleton SM. Premenstrual syndrome: evidence-based evaluation and treatment. Clin Obstet Gynecol. 2018;61(1):52–61.
- 26. Hengartner MP, Kruger TH, Geraedts K, Tronci E, Mancini T, Ille F, et al. Negative affect is unrelated to fluctuations in hormone levels across the menstrual cycle: evidence from a multisite observational study across two successive cycles. J Psychosom Res. 2017;99:21–7.
- 27. Ismail K, Robinson L. Clinical epidemiology of premenstrual disorder: informing optimized patient outcomes. Int J Women's Health. 2015;7:811–8.
- 28. Schmidt PJ, Nieman LK, Danaceau MA, Adams LF, Rubinow DR. Differential behavioral effects of gonadal steroids in women with and in those without premenstrual syndrome. N Engl J Med. 1998;338(4):209–16.
- Chrousos GP, Torpy DJ, Gold PW. Interactions between the hypothalamic-pituitaryadrenal axis and the female reproductive system: clinical implications. Ann Intern Med. 1998;129(3):229–40.
- Wardlaw SL, Thoron L, Frantz AG. Effects of sex steroids on brain beta-endorphin. Brain Res. 1982;245(2):327.
- 31. Majewska MD, Harrison NL, Schwartz RD, et al. Steroid hormone metabolites are barbiturate-like modulators of the GABA receptor. Science. 1986;232(4753):1004.
- 32. Bethea CL. Regulation of progestin receptors in raphe neurons of steroid-treated monkeys. Neuroendocrinology. 1994;60(1):50–61.
- 33. Chuong CJ, Coulam CB, Kao PC, Bergstralh EJ, Go VL. Neuropeptide levels in premenstrual syndrome. Fertil Steril. 1985;44(6):760–5.
- 34. Reid RL, Yen SS. Premenstrual syndrome. Am J Obstet Gynecol. 1981;139(1):85–104.
- Cunningham J, Yonkers KA, O'Brien S, Eriksson E. Update on research and treatment of premenstrual dysphoric disorder. Harv Rev Psychiatry. 2009;17(2):120–37.
- Yonkers KA. The association between premenstrual dysphoric disorder and other mood disorders. J Clin Psychiatry. 1997;58(Suppl. 15):19–25.
- Wirst-Justice et al. Citado en Jensvold MF. Nonpregnant reproductive age women. In: Psychopharmacology and women. Washington, DC: American Psychiatric Press; 1996. p. 139–69.
- 38. Roca CA, Schmidt PJ, Smith MJ, et al. Effects of metergoline on symptoms in women with premenstrual dysphoric disorder. Am J Psychiatry. 2002;159(11):1876.
- 39. Steinberg S, Annable L, Young SN, Liyanage N. A placebo controlled clinical trial of L-tryptophan in premenstrual dysphoria. Biol Psychiatry. 1999;45(3):313–20.
- Brzezinski AA, Wurtman JJ, Wurtman RJ, Gleason R, Greenfield J, Nader T. D-Fenfluramine suppresses the increased calorie and carbohydrate intakes and improves mood of women with premenstrual depression. Obstet Gynecol. 1990;76(2):296–301.
- 41. Scalea TLD, Pearlstein T. Premenstrual dysphoric disorder. Psychiatr Clin North Am. 2017;40(2):201–16.
- 42. Sherwood RA, Rocks BF, Stewart A, Saxton RS. Magnesium and the premenstrual syndrome. Ann Clin Biochem. 1986;23(Pt 6):667.
- 43. Facchinetti F, Borella P, Fioroni L, et al. Reduction of monocyte's magnesium in patients affected by premenstrual syndrome. J Psychosom Obstet Gynaecol. 1990;11:221–9.
- 44. Bahrami A, Bahrami-Taghanaki H, Afkhamizadeh M, Avan A, Khorasani ZM, Esmaeili H, et al. Menstrual disorders and premenstrual symptoms in adolescents: prevalence and relationship to serum calcium and vitamin D concentrations. J Obstet Gynaecol. 2018;21:1–7.
- 45. Batra NA, Seres-Mailo J, Hanstock C, et al. Proton magnetic resonance spectroscopy measurement of brain glutamate levels in premenstrual dysphoric disorder. Biol Psychiatry. 2008;63(12):1178–84.

46. Protopopescu X, Butler T, Pan H, et al. Hippocampal structural changes across the menstrual cycle. Hippocampus. 2008;18(10):985–8.

- 47. Liu P, Wei Y, Liao H, Fan Y, Li R, Feng N, et al. Thalamocortical dysconnectivity in premenstrual syndrome. Brain Imaging Behav. 2018. https://doi.org/10.1007/s11682-018-9894-0.
- 48. Liu P, Wei Y, Fan Y, Li R, Liu Y, Wang G, Wei Y, Pang Y, Deng D, Qin W. Altered brain structure in women with pre-menstrual syndrome. J Affect Disord. 2018;229:239–46.
- 49. Kondo M, Hirano T, Okamura Y. Changes in autonomic nerve function during the normal menstrual cycle measured by the coefficient of variation of R-R intervals. Nippon Sanka Fujinka Gakkai Zasshi. 1989;41(5):513–8.
- 50. Matsumoto T, Ushiroyama T, Morimura M, et al. Autonomic nervous system ativity in the late luteal phase of eumenorrheic women with premenstrual symptomatology. J Psychosom Obstet Gynaecol. 2006;27(3):131–9.
- 51. Baker FC, Kahan TL, Trinder J, Colrain IM. Sleep quality and the sleep electroencephalogram in women with severe premenstrual syndrome. Sleep. 2007;30(10):1283–91.
- 52. Chrisler JC, Johnston-Robledo I. Raging hormones? Feminist perspectives on premenstrual syndrome and postpartum depression. In: Ballou M, Brown LS, editors. Rethinking mental health and disorder: feminist perspectives. New York: Guilford Press; 2002. p. 174–97.
- 53. Sigmon ST, et al. The role of enxiety level, coping styles and cycle phase in menstrual distresws. J Anxiety Disord. 2004;18(2):177–91.
- 54. Blake F. Cognitive therapy for premenstrual syndrome. Cogn Behav Pract. 1995;2:167-85.
- 55. Deuster PA, Adera T, South-Paul J. Biological, social, and behavioral factors associated with premenstrual syndrome. Arch Fam Med. 1999;8(2):122–8.
- 56. Ramcharan S, Love EJ, Fick GH, Goldfien A. The epidemiology of premenstrual symptoms in a population-based sample of 2650 urban women: attributable risk and risk factors. J Clin Epidemiol. 1995;45(4):377–92.
- 57. Wittchen H-U, Becker E, Lieb R, Krause P. Prevalence, incidence and stability of premenstrual dysphoric disorder in the community. Psychol Med. 2002;32(1):119–32.
- 58. Perarnau MP, et al. Síntomas, Síndrome y Trastorno Disfórico Premenstrual en una muestra de mujeres universitarias. Fundamentos en Humanidades. 2010;2(Pt11):195–209.
- 59. Bocchino S. Salud Mental de la Mujer. Boletín Sociedad de Psiquiatría del Uruguay. 2004;68(1):78–89.
- American Psychiatric Association. Diagnostic and statistical manual of mental disorders-IV-TR. Barcelona: Masson; 2002.
- Perez-Lopez FR, et al. Premenstrual síndrome and premenstrual dysphoric disorder: symptoms and cluster influences. Open Psychiatry J. 2009;3:39–49.
- 62. Condon JT. The premenstrual syndrome: a twin study. Br J Psychiatry. 1993;162:481-6.
- 63. Kendler KS, Karkowski LM, Corey LA, Neale MC. Longitudinal population-based twin study of retrospectively reported premenstrual symptoms and lifetime major depression. Am J Psychiatry. 1998;155(9):1234–40.
- 64. McEvoy K, Osborne LM, Nanavati J, Payne JL. Reproductive affective disorders: a review of the genetic evidence for premenstrual dysphoric disorder and postpartum depression. Curr Psychiatry Rep. 2017;19(12):94.
- 65. Krantz G, Ostergren PO. Common symptoms in middle aged women: their relation to employment status, psychosocial work conditions and social support in a Swedish setting. J Epidemiol Community Health. 2000;54(3):192–9.
- Bertone-Johnson ER, Hankinson SE, et al. Cigarette smoking and the development of premenstrual syndrome. Am J Epidemiol. 2008;168(8):938–45.
- Masho SW, Adera T, South-Paul J. Obesity as a risk factor for premenstrual syndrome. J Psychosom Obstet Gynaecol. 2005;26(1):33–9.
- 68. Bertone-Johnson ER, Hankinson SE, Willett WC, Johnson SR, Manson JE. Adiposity and the development of premenstrual syndrome. J Womens Health (Larchmt). 2010;19(11):1955–62.
- Chocano-Bedoya PO. Intake of selected minerals and risk of premenstrual syndrome. Am J Epidemiol. 2013;177(10):1118–27.

- 70. Potter J, Bouyer J, et al. Premenstrual syndrome prevalence and fluctuation over time: results from a French population-based survey. J Womens Health (Larchmt). 2009;18(1):31–9.
- 71. Pilver CE, Kasl S, Desai R, Levy BR. Health advantage for black women: patterns in premenstrual dysphoric disorder. Psychol Med. 2011;41(8):1741–50.
- Bertone-Johnson ER, Whitcomb BW, Missmer SA, Manson JE, Hankinson SE, Rich-Edwards JW. Early life emotional, physical, and sexual abuse and the development of premenstrual syndrome: a longitudinal study. J Womens Health (Larchmt). 2014;23(9):729–39.
- 73. Golding JM, Taylor DL, Menard L, King MJ. Prevalence of sexual abuse history in a sample of women seeking treatment for premenstrual syndrome. J Psychosom Obstet Gynecol. 2000;21:69–80.
- 74. Eisenlohr-Moul TA, Rubinow DR, Schiller CE, Johnson JL, Leserman J, Girdlera SS. Histories of abuse predict stronger within-person covariation of ovarian steroids and mood symptoms in women with menstrually related mood disorder. Psychoneuroendocrinology. 2016;67:142–52.
- 75. Pilver CE, Levy BR, Libby DJ, Desai RA. Posttraumatic stress disorder and trauma characteristics are correlates of premenstrual dysphoric disorder. Arch Womens Ment Health. 2011;14(5):383–93.
- Nillni YI, Berenz EC, Pineles SL, Coffey SF, Zvolensky MJ. Anxiety sensitivity as a moderator of the association between premenstrual symptoms and posttraumatic stress disorder symptom severity. Psychol Trauma. 2014;6(2):167–75.
- 77. ACOG. ACOG practice bulletin: premenstrual syndrome. Int J Gynecol Obstet. 2000;73:183–91.
- 78. Steege JF, Blumenthal JA. The effects of aerobic exercise on premenstrual symptoms in middle-aged women: a preliminary study. J Psychosom Res. 1993;37(2):127–33.
- 79. Aganoff JA, Boyle GJ. Aerobic exercise, mood states and menstrual cycle symptoms. J Psychosom Res. 1994;38:183.
- 80. Goodale IL, Domar AD, Benson H. Alleviation of premenstrual syndrome symptoms with the relaxation response. Obstet Gynecol. 1990;75:649.
- 81. Lustyk MKB, Widman L, Paschane A, Ecker E. Women Health. 2004a;39:35–44.
- 82. Lustyk MKB, Widman L, Paschane A, Olson KC. Behav Med. 2004b;30:124–31.
- 83. Daley A. Exercise and premenstrual symptomatology: a comprehensive review. J Womens Health (Larchmt). 2009;18:895–9.
- 84. Portella AT, Haaga DA, Rohan KJ. The association between seasonal and premenstrual symptoms is continuous and is not fully accounted for by depressive symptoms. J Nerv Ment Dis. 2006;194:833–7.
- 85. Sepede G, Sarchione F, Matarazzo I, Di Giannantonio M, Salerno RM. Premenstrual dysphoric disorder without comorbid psychiatric conditions: a systematic review of therapeutic options. Clin Neuropharmacol. 2016;39:241–61.
- Reid RL, Soares CN. Premenstrual dysphoric disorder: contemporary diagnosis and management. J Obstet Gynaecol Can. 2018;40:215–23.
- 87. Stewart A. Vitamin B6 in the treatment of the premenstrual syndrome—review. Br J Obstet Gynaecol. 1991;98:329.
- 88. Thys-Jacobs S, Starkey P, Bernstein D, Tian J. Calcium carbonate and the premenstrual syndrome: effects on premenstrual and menstrual symptoms. Premenstrual Syndrome Study Group. Am J Obstet Gynecol. 1998;179:444.
- 89. Walker AF, De Souza MC, Vickers MF, et al. Magnesium supplementation alleviates premenstrual symptoms of fluid retention. J Women's Health. 1998;7:1157.
- 90. London RS, Murphy L, Kitlowski KE, Reynolds MA. Efficacy of alpha-tocopherol in the treatment of the premenstrual syndrome. J Reprod Med. 1987;32:400.
- 91. Parry BL, Berga SL, Mostofi N, Sependa PA, Kripke DF, Gillin JC. Morning versus evening bright light treatment of late luteal phase dysphoric disorder. Am J Psychiatry. 1989;146:1215–7.
- 92. Rossignol AM, Bonnlander H. Caffeine-containing beverages, total fluid consumption, and premenstrual syndrome. Am J Public Health. 1990;80:1106–10.

93. Wyatt KM, Dimmock PW, Jones PW, Shaughn O'Brien PM. Efficacy of vitamin B-6 in the treatment of premenstrual syndrome: systematic review. BMJ. 1999;318:1375.

- Brown J, O'Brien PM, Marjoribanks J, Wyatt K. Selective serotonin reuptake inhibitors for premenstrual syndrome. Cochrane Database Syst Rev. 2009;2:CD001396.
- Shah NR, Jones JB, Aperi J, et al. Selective serotonin reuptake inhibitors for premenstrual syndrome and premenstrual dysphoric disorder: a meta-analysis. Obstet Gynecol. 2008;111:1175.
- 96. Wikander I, Sundblad C, Andersch B, et al. Citalopram in premenstrual dysphoria: is intermittent treatment during luteal phases more effective than continuous medication throughout the menstrual cycle? J Clin Psychopharmacol. 1998;18:390.
- 97. Sundblad C, Hedberg MA, Eriksson E. Clomipramine administered during the luteal phase reduces the symptoms of premenstrual syndrome: a placebo-controlled trial. Neuropsychopharmacology. 1993;9:133.
- 98. Halbreich U, Bergeron R, Yonkers KA, et al. Efficacy of intermittent, luteal phase sertraline treatment of premenstrual dysphoric disorder. Obstet Gynecol. 2002;100(6):1219–29.
- 99. Landen M, Nissbrandt H, Allgulander C, Sorvik K, Ysander C, Eriksson E. Placebocontrolled trial comparing intermittent and continuous paroxetine in premenstrual dysphoric disorder. Neuropsychopharmacology. 2007;32:153–61.
- 100. Sundblad C, Wikander I, Andersch B, Eriksson E. A naturalistic study of paroxetine in premenstrual syndrome: efficacy and side effects during ten cycles of treatment. Eur Neuropsychopharmacol. 1997;7:201–6.
- 101. Yonkers K, Holthausen G, Poschman K, Howell H. Symptom-onset treatment for women with premenstrual dysphoric disorder. J Clin Psychopharmacol. 2006;26:198–202.
- Sundblad C, Modigh K, Andersch B, Eriksson E. Clomipramine effectively reduces premenstrual irritability and dysphoria: a placebo-controlled trial. Acta Psychiatr Scand. 1992;85:39.
- 103. Freeman EW, Rickels K, Sondheimer SJ, et al. Nefazodone in the treatment of premenstrual syndrome: a preliminary study. J Clin Psychopharmacol. 1994;14:180.
- 104. Freeman EW, Rickels K, Yonkers KA, et al. Venlafaxine in the treatment of premenstrual dysphoric disorder. Obstet Gynecol. 2001;98:737.
- 105. Smith S, Rinehart JS, Ruddock VE, Schiff I. Treatment of premenstrual syndrome with alprazolam: results of a double-blind, placebo-controlled, randomized crossover clinical trial. Obstet Gynecol. 1987;70:37.
- Harrison WM, Endicott J, Nee J. Treatment of premenstrual dysphoria with alprazolam. A controlled study. Arch Gen Psychiatry. 1990;47:270.
- 107. Pearlstein TB, Bachmann GA, Zacur HA, et al. Treatment of premenstrual dysphoric disorder with a new drospirenone-containing oral contra- ceptive formulation. Contraception. 2005;72:414–21.
- 108. Bancroft J, Rennie D. The impact of oral contraceptives on the experience of perimenstrual mood, clumsiness, food craving and other symptoms. J Psychosom Res. 1993;37:195–202.
- 109. Graham CA, Sherwin BB. A prospective treatment study of premenstrual symptoms using a triphasic oral contraceptive. J Psychosom Res. 1992;36:257–66.
- 110. Sulak P, Scow R, Preece C, Riggs M, Kuehl T. Hormone withdrawal symptoms in oral contraceptive users. Obstet Gynecol. 2000;95:261–6.
- 111. Sulak P, Kuehl T, Ortiz M, Schull B. Acceptance of altering the standard 21-day/7-day oral contraceptive regimen to delay menses and reduce hormone withdrawal symptoms. Am J Obstet Gynecol. 2002;186:1142–9.
- 112. Freeman EW. Evaluation of a unique oral contraceptive (Yasmin) in the management of premenstrual dysphoric disorder. Eur J Contracept Reprod Health Care. 2002;7(Suppl. 3):27–34.
- Lopez L, Kaptein A, Helmerhorst F. Oral contraceptives containing drospirenone for premenstrual syndrome. Cochrane Database Syst Rev. 2008;1:CD006586.
- 114. Rapkin AJ, Winer SA. Drospirenone: a novel progestin. Exp Opin Pharmacother. 2007;8:989–99.

- 115. Yonkers K, Brown C, Pearlstein T, Foegh M, Sampson-Landers C, Rapkin A. Efficacy of a new low-dose oral contraceptive with drospirenone in premenstrual dysphoric disorder. Obstet Gynecol. 2005;106:492–501.
- 116. Rodin M. The social construction of premenstrual syndrome. Soc Sci Med. 1992;35(1):49–56.
- 117. Figert AE. Premenstrual syndrome as scientific and cultural artifact. Integr Physiol Behav Sci. 2005;40(2):102–13.
- 118. Chrisler JC, Caplan P. The strange case of Dr. Jekyll and Ms. Hyde: how PMS became a cultural phenomenon and a psychiatric disorder. Annu Rev Sex Res. 2002;13:274–306.
- 119. Zachar P, Kendler KS. A diagnostic and statistical manual of mental disorders history of premenstrual dysphoric disorder. J Nerv Ment Dis. 2014 Apr;202(4):346–52.
- 120. Johnson TM. Premenstrual syndrome as a western culture-specific disorder. Cult Med Psychiatry. 1987;11(3):337.



## **Abortion and Mental Health**

21

Marta B. Rondon

#### **Abstract**

Every year, between 2010 and 2014, there were about 55 million abortions, of which around 55%, that is, 25 million, were unsafe. These are a major contributor to maternal mortality and put women in risk of legal prosecution, stigmatization, and extreme morbidity.

According to the World Health Organization, abortion is the loss of the fetus before it is viable, and unsafe abortion is "a procedure for termination of a pregnancy done by an individual who does not have the necessary training or in an environment not conforming to minimal medical standards" (Ganatra et al., Bull World Health Organ 92:155, 2014). Around 97% of these occur in developing nations, located in Asia, Africa, or Latin America (WHO Worldwide, an estimated 25 million unsafe abortions occur each year. Press release: http://www.who.int/news-room/detail/28-09-2017-worldwide-an-estimated-25-million-unsafe-abortions-occur-each-year). Recently, a distinction between "less unsafe" and "unsafe" was introduced, to make way for a correct appraisal of medical abortion and manual vacuum aspiration the less unsafe alternatives (Ganatra et al., Lancet 390:2372–2381, 2017).

Pregnancy and postpartum have been recognized as periods when the well-being of the woman is challenged by several physical, social, and psychological demands. Even as maternity and motherhood have been romanticized in most cultures, it is currently understood nowadays that pregnancy does not protect from mental illnesses and that special attention must be paid to the woman's health, both physical and mental, during the perinatal period in order to insure favorable outcomes for mother and child.

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It is then only logical that women have demanded the access to safe and voluntary motherhood, since the days of the first population conferences. The Beijing Platform for Action recognized that equal access to the highest attainable level of health is a strategic need for women to attain equality. This level of health can only be achieved if there are information and services for women to "have the capability to reproduce and the freedom to decide if, when and how often to do so" (Fourth World Conference on Women, Beijing Declaration and Platform for Action, Sept 1995. p. 95. http://www.un.org/womenwatch/daw/beijing/pdf/BDPfA%20E.pdf).

### 21.1 Introduction

Every year, between 2010 and 2014, there were about 55 million abortions of which around 55%, that is, 25 million, were unsafe. These are a major contributor to maternal mortality and put women in risk of legal prosecution, stigmatization, and extreme morbidity.

According to the World Health Organization, abortion is the loss of the fetus before it is viable, and unsafe abortion is "a procedure for termination of a pregnancy done by an individual who does not have the necessary training or in an environment not conforming to minimal medical standards" [1]. Around 97% of these occur in developing nations, located in Asia, Africa, or Latin America [2]. Recently, a distinction between "less unsafe" and "unsafe" was introduced, to make way for a correct appraisal of medical abortion and manual vacuum aspiration the less unsafe alternatives [3].

Pregnancy and postpartum have been recognized as periods when the well-being of the woman is challenged by several physical, social, and psychological demands. Even as maternity and motherhood have been romanticized in most cultures, it is currently understood nowadays that pregnancy does not protect from mental illnesses and that special attention must be paid to the woman's health, both physical and mental, during the perinatal period in order to insure favorable outcomes for mother and child.

It is then only logical that women have demanded the access to safe and voluntary motherhood, since the days of the first population conferences. The Beijing Platform for Action recognized that equal access to the highest attainable level of health is a strategic need for women to attain equality. This level of health can only be achieved if there are information and services for women to "have the capability to reproduce and the freedom to decide if, when and how often to do so" [4].

## 21.2 Maternal Mental Health and Pregnancy Intendedness

Perinatal depression, affecting between 15% and 44% of pregnant women in lowand middle-income countries, is a serious illness with clear neurobiological, psychological, and social determinants that causes disability, comorbid with other physical and mental ailments that can end in suicide. It significantly interferes with the functioning of the affected person and diminishes his/her chances of achieving personal, academic, and work realization [5].

Depression poses other health risks for pregnant women too: it has been shown that depressed women have a higher chance of obstetric complications, such as emergency C-sections, instrumental deliveries, more epidural anesthetics, more admission to intensive care units, and a higher rate of premature and small for gestational age deliveries [6].

Suicide is not frequent during pregnancy; but, in some countries, it is the leading cause of maternal mortality, especially in younger women when they carry unwanted pregnancies in severely restrictive contexts, where no other way out seems possible [7–9].

Unwanted pregnancy has been recognized as one of the risk factors for perinatal, particularly postnatal, depression. Fisher [10] in a review of 34 papers from 17 low-and middle-income countries reporting on depression in women who had given birth found that the prevalence of postpartum depression was 19.8% (CI 95% 19.5–20.0) and identified the following risk factors:

- Socioeconomic disadvantage OR range 2.1–13.2.
- Unwanted pregnancy OR range 1.6–8.8.
- Being younger OR 2.5–5.4.
- Being unmarried OR range 3.4–5. 8.
- Lacking intimate partner empathy and support OR range 2.0–9.4.
- Having hostile in-laws OR range 2.1–4.4.
- Experiencing intimate partner violence OR range 2.11–6.75.
- Having insufficient emotional and practical support OR range 2.8–6.1.
- In some settings: giving birth to a female OR range 1.8–2.6.
- Having a history of mental health problems OR range 5.1–5.6.

In a large study (982 women who started prenatal care before week 16), researchers found that women who reported unplanned pregnancies tended to have lower levels of brain-derived neurotrophic factor (BDNF). Women with the lower levels of BDNF, in turn, were found to have 1.61 higher odds of antepartum depression (OR = 1.61; 95% CI: 1.13–2.30) after adjusting for potential confounders such as maternal age, early maternal BMI, and parity [11]. This is to illustrate that probably the added stress of facing an unwanted pregnancy induces changes in the brain that are associated with an increased chance of suffering from depression.

Secondary analysis of the data from the Pregnancy Infection and Nutrition study (PIN3) has shown that pregnancy intention does indeed have an impact on postpartum mental health. Out of 680 women enrolled, 433 (64%) reported an intended pregnancy, 207 (30%) reported a mistimed pregnancy—they did want a child but not at that point in time—and 40 (6%) had an unwanted pregnancy. Although overall only 7.3% of the sample was depressed at 6 months postpartum and 6% was depressed at 12 months, the women who had reported unwanted pregnancy suffered three times more depression (15%) than those who had a desired pregnancy (5%)

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3 months postpartum. At 12 months, the gap was much wider, with 20% women with unwanted children depressed vs. 3% women who had wanted to be pregnant and 11% of those who reported mistimed pregnancies [12]. This study, done in a setting where abortion is legal, supports very clearly the plausibility of a link between unintended pregnancy and postpartum depression, specially in underprivileged populations. Women chose to keep the baby, and yet their mental health was harmed by the experience.

In settings where abortion is illegal, the untoward consequences of unwanted pregnancy may be worse. A lengthy follow-up study of women who had been denied abortion in Czechoslovakia and their progeny shows that the mental health of the mother is affected for at least 7 years and the physical and mental health of the children is permanently harmed [13].

Lara et al. found that an unplanned pregnancy increased the odds of postpartum depression and postpartum depressive symptoms 2.71 times at 6 weeks postpartum and 2.81 times at 6 months postpartum. However, an unwanted pregnancy raised the odds by 3.87 times at 6 weeks postpartum and 2.71 times at 6 months postpartum [14]. The authors also note that circumstances such as pregnancy intention, low educational attainment, low income, and being unemployed are crucial factors in developing but not in developed countries. Of particular importance is the observation that the burden (both financial and psychological) of an unwanted pregnancy may be higher for disadvantaged women, whose coping mechanisms are already overburdened.

Unfortunately, the regions of the world where abortion is illegal are the regions with lower incomes and lower levels of overall development [15]. A look at the world's abortion laws allows us to see that the least developed regions in the Global South are those where laws are more restrictive and there are more abortions.

This paradoxical fact has been well described in a seminal article by Sedgh et al., analyzing the trends in abortion in the different regions. The rate of abortions has declined from 40 per 1000 women in 1990–1994 to 35 in the period 2010–2014. The decline in the developed world has been 19 points; in the developing countries, the decline has been only 2%. Furthermore, Latin America and the Caribbean, a region with restrictive laws (except for Uruguay), shows an increase in the rate of abortion.

In the regions of the world where abortion is allowed to save the woman's life or to protect her health, there is a higher chance that a woman in need of an abortion will resort to an unsafe procedure. Even if her health is at stake, there are issues that will prevent the woman from obtaining a safe pregnancy termination in a health center—for instance, abortion services may be unavailable or difficult to access; there may be lack of awareness of what the law permits, both among health providers and the people; women may be prevented from seeking care due to cultural and religious ideas or fear of ill treatment or legal reprisals; unwillingness from practitioners to implement abortion laws and recognize that women have a right; abortion services may be of low quality or too costly; or the attitudes of medical staff may discourage the women, or conscientious objectors, not well regulated by local law, may deny women the treatment [16].



Fig. 21.1 The world's abortion laws

The fact that a country has a legal provision to allow termination of pregnancy in order to protect a woman's health speaks of the preoccupation with the health—and dignity—of the woman; it emphasizes that a given society values the well-being of the woman. Abortion is a legal right, and, in cases where the health of the woman is at stake, it is a human right.

More than 20% of the women of reproductive age live in countries where abortion is either not permitted or allowed only to save a woman's life. Roughly 40% live in places where abortion is available on demand. The remainder 40% may access abortion to protect their health, that is, they may access therapeutic abortion (Fig. 21.1).

### 21.3 Abortion when Health Is at Risk

Health is defined as the complete state of well-being, physical, psychological, and social, and not merely the absence of disease.

Pregnancy may represent a risk for the mother's health as a consequence of physiological vulnerability, as in the complications inherent to the pregnancy itself, for instance, hyperemesis gravidarum or eclampsia; or it may interfere with the treatment of other potentially life-threatening conditions, such as a cancer. The third case is when pregnancy coexists with other illnesses that may be aggravated by the gestation.

Under these considerations, the possibility that a pregnancy may trigger or increase a woman's risk of depression or of not being able to receive adequate

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treatment for any other mental condition should immediately prompt the discussion of whether she wants to use her right to therapeutic abortion.

In this case, it is important to recognize that depression is a serious illness which causes disability, difficulties in interpersonal interactions, and social and work dysfunction and leads to stigma and discrimination and may end up in suicide.

### 21.4 Practical Considerations

Women need to be informed by their attending physician of their right to physical and mental well-being and of the fact that the law has provisions in case they undergo difficulties.

The prenatal visit is an ideal time to detect any problems in the adaptation to pregnancy, as well as pregnancy intendedness and the experience of intimate partner violence.

The complete history should contain details of her current functioning and adaptation, as well as the perinatal history, her obstetric history, the family background (mental illness, substance abuse, problems with the law), and the details of her experiences with violence.

In most places it is now customary to inquire about emotional difficulties. If the woman is found to have emotional difficulties adapting to pregnancy, the clinician should proceed to explore the other possible risk factors (as listed by Fisher) that may suggest an increased risk of depression.

Women who get pregnant as the result of sexual violence or even of sexual coercion should also be considered for therapeutic abortion on mental health grounds. Forcing a woman to carry to term a pregnancy and raise the child of her rapist is considered conductive to great psychological suffering, and denial of abortion to protect the mental health of a woman subjected to violence is discriminatory [17].

When there are no explicit provisions for termination of pregnancy in cases of fetal malformations (severe, incompatible with life), the woman may also resort to the affectation of her mental health due to the stress of the complications to access therapeutic abortion.

### 21.5 Final Remark

It is timely to point out that "therapeutic" is a misnomer. Termination of pregnancy does not cure a mental illness, and this is not what is intended by allowing abortion "to protect the health of the woman." Rather, what is intended is that a woman is not subjected to undue suffering caused by an unwanted pregnancy, compounded by a personal history of previous depressive illness, childhood adversity, familial history of depression, obstetric complications, social and economic deprivation, interpersonal violence, or comorbid physical illness. These circumstances challenge the capacity of a person to cope with stress, and the demands and uncertainty posed by an unwanted pregnancy may increase the allostatic burden to a point where severe

illness may follow. The rationale of allowing abortion in these cases is to protect the woman from depression and its complications and protect her right to the highest attainable level of health.

### References

- Ganatra B, Tunçalp Ö, Johnston HB, Johnson BR, Gülmezoglu A, Temmerman M. From concept to measurement: operationalizing WHO's definition of unsafe abortion. Bull World Health Organ. 2014;92:155.
- WHO Worldwide, an estimated 25 million unsafe abortions occur each year. Press release: http://www.who.int/news-room/detail/28-09-2017-worldwide-an-estimated-25-million-unsafe-abortions-occur-each-year
- Ganatra B, Gerdts C, Rossier C, Johnson BR Jr, Tunçalp Ö, Assifi A, Sedgh G, Singh S, Bankole A, Popinchalk A, Bearak J, Kang Z, Alkema L. Global, regional, and subregional classification of abortions by safety, 2010–14: estimates from a Bayesian hierarchical model. Lancet. 2017;390(10110):2372–81. Epub 27 Sept 2017. https://doi.org/10.1016/ S0140-6736(17)31794-4.
- Fourth World Conference on Women, Beijing Declaration and Platform for Action, Sept 1995.
   p. 95. http://www.un.org/womenwatch/daw/beijing/pdf/BDPfA%20E.pdf
- Berndt ER, Koran LM, Sn F, Gelenberg AJ, Kornstein SG, Miller MI, Thase ME, Trapp GA, Keller MB. Lost human capital from early-onset chronic depression. Am J Psychiatry. 2000;157(6):940–7.
- 6. Chung T, lau T, yip A, Chiu H, lee D. Antepartum depressive symptomatology is associated with adverse obstetric and neonatal outcomes. Psychosom Med. 2001;63(5):830–4.
- Department of Health. Report of the confidential enquiries into maternal deaths. London: Department of Health; 1999.
- 8. Brockington I. Suicide in women. Int Clin Psychopharmacol. 2001;16:S7-S19.
- Frautschi S, Cerulli A, Maine D. Suicide during pregnancy and its neglect as a component of maternal mortality. Int J Gynaecol Obstet. 1994;47:275

  –84.
- Fisher J, Cabral de Mello M, Patel V, Rahman A, Tran T, Holton S, Holmes W. Prevalence and determinants of common perinatal mental disorders in women in low- and lower-middleincome countries: a systematic review. Bull World Health Organ. 2012;90(2):139G–49G. https://doi.org/10.2471/BLT.11.091850. Epub 24 Nov 2011.
- 11. Fung J, Gelaye B, Zhong QY, Rondon MB, Sanchez SE, Barrios YV, Hevner K, Qiu C, et al. Association of decreased serum brain-derived neurotrophic factor (BDNF) concentrations in early pregnancy with antepartum depression. BMC Psychiatry. 2015;15:43. https://doi.org/10.1186/s12888-015-0428-7.
- 12. Mercier RJ, Garrett J, Thorp J, Siega-Riz AM. Pregnancy intention and postpartum depression: secondary data analysis from a prospective cohort. BJOG. 2013;120(9):1116–22.
- David H. Born unwanted, 35 years later: the Prague study. Reprod Health Matters. 2006;14:181–90.
- Lara MA, Navarrete L, Nieto L. Prenatal predictors of postpartum depression and postpartum depressive symptoms in Mexican mothers: a longitudinal study. Arch Womens Ment Health. 2016 Oct;19(5):825–34. https://doi.org/10.1007/s00737-016-0623-7.
- 15. Center for Reproductive Rights. A global view of World's abortion laws. World Abortion Map. http://worldabortionlaws.com/about.html.
- 16. World Health Organization. Unsafe abortion global and regional estimates of the incidence of unsafe abortion and associated mortality in 2008. 6th ed. Geneva: World Health Organization. p. 7.
- 17. Convention on the Elimination of All Forms of Discrimination Against Women. Communication no. 22/2009 views adopted by the Committee at its fiftieth session, 3–21 Oct 2011. LC v Peru. http://undocs.org/CEDAW/C/50/D/22/2009.



## **Pregnancy Depression** from a Gender Perspective

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### **Abstract**

There are a significant number of pregnant women who eventually have some kind of psychiatric symptoms during pregnancy. This is a period that involves significant biological, psychological and social changes. In this chapter, we review this issue in its entirety, examining in detail how gender roles and social models of maternity/paternity may contribute to the development of gestational depression. We also review the different treatments used, both pharmacological and non-pharmacological. Finally, we include a section focusing on the father figure from the same perspective and emotional disorders that he could also have in this process.

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### 22.1 Introduction

Prepartum mental health disorders will affect approximately 10% of mothers. Depression in pregnancy is estimated by the World Health Organization to be one of the most important worldwide illnesses that affects women of childbearing age [1]. In fact, most women do not only feel depressed but, instead, feel overwhelming anxiety, panic, agoraphobia and obsessive-compulsive symptoms and psychosis [2]. This is far from the idealised public view that the gestational process is one encompassing mainly positive emotions and processes in parents.

Traditionally, pregnancy has been associated with an idealised construct tinted by emotional satisfaction and wellbeing. In the past, mothering was regarded as a source of satisfaction and, in some cultures, a central mission of women. The dominant concept was that women were somehow protected from mental health difficulties [3]. It was not until 1985 that Dr. Oppenheim, a British psychiatrist, raised issues regarding psychological disorders in pregnancy, giving a voice for the first time to those who had refuted the prevailing myths about maternal mental health before and after birth [4].

It is recognised nowadays that pregnancy is a period of metabolic change involving hormonal and biological changes affecting women from the early stages of gestation. However, far beyond the biological impact that gestation brings about, the psychosocial impact is just as significant, if not of greater relevance for womankind [5].

While biological changes are universal to women's experiences of pregnancy, maternity is conceptualised and represented in many diverse ways across females [6]. Culture, education, politics and social concepts regarding pregnancy will contribute to the experience of both men and women as individuals with their specific backgrounds and personalities experience of becoming a parent [7].

## 22.2 Social Constructs of Mothering

In order to explore psychopathology and gender in the context of pregnancy, it is important to understand social and cultural factors that have shaped how the meaning of maternity has developed in the western world. We will consider some of the heated debates that have taken place over time and contributed to a shared social understanding of the meaning of mothering.

Women have traditionally known themselves both as daughters and potential mothers, while men, dissociated from the process of conception, experience themselves as sons first and only later as fathers [8]. It can be argued that patriarchal monotheism did not simply change the sex of divine presence but also stripped the universe of female divinity and allowed the sanctification of women only as mothers or as daughters of a divine father. This devaluation of the figure of the mother goddess contributed eventually to a rejection of the female figure throughout different cultures over time [8]. However, others have viewed maternity in a privileged position when raising the question 'what is a woman?', placing it at the core of the

identity of what we understand as femininity [9], thus defining womanhood largely in association to being a mother. Under this view, motherhood becomes a vital dimension that emerges as a dominant dimension.

Maternity does not have a unique meaning as a social and psychological experience but includes multiple dimensions and definitions. It is sometimes evoked as an instinct to seek fulfilment for women. From a feminist perspective, mothering is a central and defining feature of social organisation or gender and is implicit in the construction and reproduction of male dominance itself, with association not only to pregnancy and labour but also ramifications to child-care responsibilities and an attribution of women's primary social roles as reproduction and domestic tasks [10]. To consider maternity consequently implies the examination of a range of symbols and models of femininity that go beyond the field of procreation. This examination must consider gender stereotypes that rely on supposed biological evidence as a construction of the model of what constitutes being a woman [11]. All in all, motherhood is a cultural construct, which is deeply rooted in representations of what it means to be a female in a wider sense.

Talking about maternity leads to a discussion about male/female differences and their social context. Frederick Engels, according to Draper [12], identified the father right and the end of the matrilineal clan with the beginnings of private ownership and slavery. He saw women as forced into marriage and prostitution through economic dependency and predicted that sexual emancipation would come with the abolition of private property and the end of male economic supremacy. For Engels (as for succeeding generations of Marxists), the oppression of woman has a simple economic cause and an economic solution. Ritch [8] proposes that, in society, the notion of woman was, for a man, both more and less than a person: she is something terribly necessary and necessarily terrible in her role of a mother; thus, she requires possession and control. Post-Freudian psychology posits that men's contributions to culture are their ways to compensate for the lack of creative power of motherhood and that 'motherliness' is split off from both sexual attractiveness and motherhood: thus, during the past centuries, the Virgin Mary could be worshiped, while living women were brutalised and burnt as witches [13].

Notwithstanding the above, in many cultures, women have been assigned prominence, being vital in the creation of new offspring, as well as in the role of mothering children. As well as external influences on the conceptualisation of motherhood, there are, of course, internal factors from each woman's experience. Therese Benedek speaks of women's primary reproductive drive [14] and instinctual need [15] to fulfil her physiological and emotional preparedness for mothering. Winnicott [16] suggests that holding the infant physically in her uterus leads to a mother's identification with the infant after it is born and, therefore, to a very powerful sense of what the baby needs. Rossi [17] argues that women's maternal instinct has been genetically programmed as a result of past adaptive needs. Thus, there is a strongly forged assumption that all women must share this instinct, exemplified in positive emotional reactions to little children and infants. In fact, to express the opposite is likely to be branded as a deviance from the norm, something surprising and somewhat strange.

In short, it is not easy to demarcate what being a woman is from being a mother, something that has not happened with the equivalent male roles, even though there are only unconvincing explanations for the need for all women to embrace motherhood, beyond it being a feature of social mechanisms. The biological arguments for women's identity as mothers are based on assertions that derive not from our biological knowledge or experiences but from our interpretations of natural situations in the context of social interactions [10]. Whatever its origin, and in spite of cultural, political and economic changes, maternity is still being regarded as generally inherent in the feminine condition, with a belief that a woman is only fulfilled if she becomes a mother [18]. It is suggested that women's mothering, like other aspects of gender activity, is a product of feminine role training and role identifications, with girls learning to be mothers, trained for nurturing and to develop a belief that they ought to be mothers [10]. Topics regarding the maternal function of females have pushed and conditioned women to the point of idealisation of maternity, and whereby women, themselves, assume there is an overriding need to have a baby [18]. Those women who do not have children are likely to have considered it at some stage in their lives, and motherhood constitutes a link in feminine subjectivity.

Thus, childbirth, particularly in the female mind, is surrounded with fantasies and desires [19]. Balsam (2012) notes that a female body event like pregnancy or childbirth is prepared for developmentally and worked over in the minds of girls and women years before and years after the events themselves. It is thought the witnessing of older pregnant relatives or friends contributes to the development of fantasies and concerns about their own potential for reproduction and the development of their own body image [20].

It is in this context that the idealisation of pregnancy is a process in the female mind, whereby it is regarded as a necessity to attain full development. Thus, as well as socially assigned roles of women and their own identification with appropriate gender roles, pregnancy is also represented as a process that is idyllic and personally satisfying. Such a conceptualisation can be identified in the imagery used in publicity and marketing, with a portrayal of expectant mothers as calm and introspective. The mothers seem to be sober, balanced, patiently waiting and in connection with their unborn child [11] with a strong element of social idealisation which shapes a joint and standard understanding of what pregnancy must mean for women.

Another important aspect defined in psychological literature is the meaning that the transition to motherhood has for women, with a central value on the shift that it implies towards a 'symbolic adult social age' [21]. Becoming a mother implies an irreversible process, encouraging women to enter into adulthood in which the expected role of the woman would still be the same as the traditional feminine model of children and family care [22].

It is apparent that in recent decades the perception of women and society about female roles and about motherhood has evolved and remains in a full process of change. The important debates around equality between males and females, at least in some although not all cultural contexts, have resulted in a reduction of the female role being considered as passive and submissive.

Women have undoubtedly conquered a greater social and cultural space beyond the domestic duties and environment traditionally associated with their role. However, this cultural change has also created complex demands and situations for women, which are not always easy to address, such as the antagonism between demands of motherhood and the workplace, particularly during pregnancy [23].

Research suggests that pregnant women are discriminated against in the work-place and that a significant percentage of new mothers leave the work environment once they become pregnant [24]. Expecting mothers anticipate and experience stigma that mediates the relationships between individual (e.g. gender role attitudes) and workplace factors (e.g. workplace support), as well as issues with job satisfaction and psychological wellbeing. Thus, the antagonisms between maternity demands on females and labour demand surface during pregnancy itself [23].

Returning to work after childbirth can also be an area of difficulty, and mothers can struggle with retaining their old job once they have delivered their child. Feelings of guilt coming from a sensation of unfulfillment and estrangement with the company for which they work for are also reported by those experiencing pregnancy and subsequent motherhood [11]. There is a significant discrepancy in the male and female experiences of pregnancy at the workplace, with females forced to work issues arising, while their male counterparts' impending paternity does not directly lead to situations such as confrontation or negotiation with employers, which are common experiences for women. While equality is a legal right, despite the progress gained in all aspects of life by women, real equality is not a given [25].

While it is apparent that nowadays motherhood is not considered to be the only possible social pathway for women, it is striking that this option is still being experienced by expectant mothers as a clear cause of disadvantages in the context of a socially and psychologically idealised perception of what pregnancy should entail, with women not being able to attain and the clichéd, traditional views of womanhood and pregnancy.

# 22.3 Additional Psychological Issues Associated with Pregnancy

Specific approaches to understanding depression in women are grounded in the theories of women's psychological selves, with the concept of 'the relationship self' being central to them [26]. From the view point of these approaches, psychological development in females is regarded as taking place within a gender-specific interpersonal context that contributes to women forming a personality orientation which is gender-specific as well. Women's relationships with others, thus, represent a critical context of psychological growth and learning [26]. Depression is understood as a set of experiences which are grounded in interpersonal processes, and a woman could experience depression when her possibilities for relationship intimacy with another person are negatively affected [27]. In the context of pregnancy, if the woman's key relationships, either with her work colleagues, friendships or others close to her, are conflicted or fail to provide a positive context in which the mother's

relationship needs can be met, she might respond by silencing herself and, therefore, experience symptoms of depression [28].

Pregnancy brings both psychological and physical changes to women, with an initial difference between the experience of maternity and paternity in that the former happens inside the mother, whereas the latter is a process external to the paternal body experience.

Pregnancy and childbirth are also associated with significant hormonal changes, also outside of the control of the parents, further adding to emotional demands during pregnancy and beyond. A causal link is postulated between hormonal modifications and depression in woman, with increasing levels of depressive symptomatology before and after the gestational period [28].

The journey through pregnancy involves a physical transformation, including necessary weight gain that is not only experienced by the mother but is also outwardly perceived and socially loaded with meaning. Concerns about one's own image and one's body attractiveness can therefore become a critical aspect of this period of women's lives. Women's perception of their pregnant body is varied and depends on the strategies they use to protect against social constructions of female beauty. Women can have unrealistic expectations for their body changes throughout the processes of pregnancy and postpartum which can affect their emotional wellbeing, particularly while their bodies are undergoing such significant changes associated to this period.

As part of the process of having a new being growing insider her, the expectant mother not only has to cope with body changes and weight gain but must also tolerate discomfort, tiredness, decreased mobility and even potential loss of dexterity. This appears to be socially regarded as a necessary consequence of maternity and is, thus, generally accepted as a cost linked to having a child; nevertheless, it also incurs psychological demands and a potential emotional cost to the expecting mother.

Pregnancy invades, both suddenly and inevitably (as part of the normal gestational process), issues of self-body control in females. This elicits a psychiatric conflict for females involving the confrontation between the sexual self and the 'psychical reproductive disagreement' defined also by their sexual organ. The fear of weight gain and not being able to return to the pre-pregnancy body is a frequent concern and dread during this stage [10]. Such emotional demands can arouse conflict, intolerances and frustration, as well as ambivalence, with a consequent impact on the mental health of the pregnant mother.

As pregnancy progresses, it becomes a visual print which opens maternity up to the social environment: the body gives 'visibility' to pregnancy. Thus, self-intimacy loses space in the psyche of the pregnant woman, and sexuality opens itself to the open eye of the public, with an external view and as a reminder to others of the expectant situation of the woman. Socially, this can result in others beginning to 'maternise' the person, reinforcing stereotypes, models and values of what it is to be a pregnant woman, as well as placing expectations on her behaviour [10].

Both internally and externally, the conceptualisation of pregnancy involves an expectation on the mother to be fully dedicated to caring for her unborn child,

protecting it against everything, even against herself and her own potentially harmful behaviours. The future baby becomes the central point of relevance in the mother-child relationship in the context of a pregnancy being socially observed. In practice, this can result in a level of social censorship of parental behaviour (particularly that of mothers) that might imply any kind of negative influence on the welfare of the unborn child. It implies that others around the mother could feel within their rights to form and express an opinion about the woman for the mere reason of her being pregnant. This not only contributes to placing stress on the expecting parent but also reinforces the process of de-individualisation that womankind undergoes during pregnancy, the demand and judgement that she has to tolerate at a time when her sense of agency and freedom to decide about herself and her circumstances is restricted.

Hence, the transition to motherhood may be a source of stress in multiple ways because of changes in the mother's identity associated to the process of having a child [29]. A key feature of such modifications is a sense of loss which is compounded socially in a context in which the identity of being a mother is not valued highly (at least as high as other social roles or tasks) and the role of being a mother is devalued [29].

### 22.4 Treatment

There is relatively little, and at times, contradictory information, on the treatment of depression and its effects during the puerperal. Thus, the provision of clinical recommendations for the management of patients can prove to be a difficult task. However, given that untreated depression during pregnancy is associated with increased mortality and morbidity of both the mother and unborn child [30], it is crucial to use the most optimal strategy for addressing this condition. The use of pharmacological treatment during pregnancy therefore involves the analysis of benefits in diminishing the risk potential of the untreated depression compared with the adverse effects of exposure to medication. It must be also taken into account that considering the high percentage of unplanned pregnancies, it is the case that, by the time the pregnancy is identified, the unborn child has already been exposed to the drug most probably for a number of weeks [31].

Even though there is still a limited volume of research regarding the treatment of depression during pregnancy compared with treatment in the general population, an important issue is that the risks and benefits of pharmacological and other psychoinvasive treatments during the gestational period pose a complex problem for treatment. Pregnancy is an added factor to be taken into consideration in addition to the presence of a depressive disorder or the development of one during the gestational period. This calls for the need to have a considered approach to treatment which ultimately needs to be tailored to the requirements of the expecting mother. Given that untreated depression during pregnancy is associated with increased mortality and morbidity for both the newborn and the mother, it is important to use the optimal strategy for addressing this disease. Table 22.1 sets out the risk of untreated depression during pregnancy.

| Risks                            | Possible consequences                                   |
|----------------------------------|---|
| Intensification of depressive    | Poor self-care  |
| symptoms                         | Inappropriate prenatal care                             |
|                                  | Substance abuse   |
|                                  | Suicide   |
|                                  | Postpartum depression                                   |
| Problems in pregnancy and during | Abortion  |
| delivery                         | Preeclampsia  |
|                                  | Preterm delivery  |
|                                  | C-section and instrumental delivery                     |
|                                  | Minor head circumference                                |
|                                  | Low birth weight  |
|                                  | Perinatal complications                                 |
|                                  | Neonatal intensive care                                 |
|                                  | Disturbances of the hypothalamic-pituitary-adrenal axis |
| Long-term effects for the child  | Poor postnatal care                                     |
|                                  | High cortisol levels                                    |
|                                  | Poor adaptation to stress                               |
|                                  | Stunting  |
|                                  | Delayed psychomotor development                         |
|                                  | Behavioural and cognitive problems                      |

Table 22.1 Most common risks of untreated depression during pregnancy

Current treatments for perinatal depression include both pharmacological therapy and non-pharmacological treatment.

## 22.4.1 Pharmacological Therapy

The exclusion of pregnant women from clinical trials makes the information available to us regarding the use of drugs during pregnancy low, while the only information we have is through observational studies, which logically include numerous confounding factors [32]; thus, it would require rigorous randomised controlled trials (RCTs) that are warranted to assess whether antidepressant drugs are efficacious in pregnant women, whether any antidepressants are harmful to the foetus and whether untreated depression is harmful itself. In the meta-analysis of Ross et al. [30], the authors find small associations between exposure to pharmacological treatment for depression in pregnancy and pregnancy outcomes. They conclude that the differences between groups are small so it is important to consider the clinical importance of the decision to treat or not to treat maternal depression versus low risk of exposure. In a systematic review carried out by Mitchell and Goodman [33], they highlight that it is not justified to stop drug treatment in a woman because she gets pregnant. Although more studies are warranted, the differences for the foetus between treat and not are not significant.

Most women of childbearing age who are treated with antidepressants receive selective serotonin reuptake inhibitors (SSRIs) or serotonin-norepinephrine reuptake inhibitors (SNRIs), and considering the high percentage of unplanned pregnancies, it

is expected that in many cases, when the woman detects pregnancy, the foetus takes weeks exposed to drug [31]. The most recent reviews and guidelines on the use of antidepressants in pregnancy recommend the use of SSRIs and SNRIs versus classic monoamine oxidase inhibitors (MAOIs) and tricyclic antidepressants (TCAs) for their better safety profile and lower risk to the foetus. Both SSRIs and SNRIs cross the placental barrier and are detected in umbilical cord blood and amniotic fluid.

### 22.4.1.1 Selective Serotonin Reuptake Inhibitors (SSRIs)

In the early years after the marketing of fluoxetine in 1987, studies found no relationship between the use of SSRIs and the occurrence of congenital malformation. But it was not until 2005, following the publication of a report by GlaxoSmithKline, which suggested an increase of 1.5 times the risk of cardiac malformations in foetuses exposed to paroxetine, primarily ventricular septal defects [34]. Based on these studies, the Food and Drug Administration (FDA) of the USA issued a notice recommending avoiding the use of paroxetine during pregnancy and changing its classification category of teratogenic risk from C class to D class [35]. In the following years, several epidemiological studies have been published relating both positively and negatively the use of paroxetine with the occurrence of these malformations. A meta-analysis published in 2010 suggested a slightly increased risk of heart defects with exposure to paroxetine during the first trimester of pregnancy, with an odds ratio value of 1.46 (CI 1.17–1.82) [36]. Still, there are some authors who claim that women who suffer from anxiety and depression during pregnancy are more likely to be careened by echocardiography tests, in relation to healthy pregnant women, so that there is a greater probability of detection of cardiac malformations [37]. Furthermore, these women are more likely to take their children to the emergency services, so there is also a higher probability of detection of malformations. Most of the malformations seen tend to resolve spontaneously during childhood, so if we examine the children not exposed to paroxetine and those exposed to it after resolution of malformations, this could be another confounding factor in the studies to determinate the influence of medication.

All these potential confounders have been confirmed by a recent population-based study in Denmark in which the authors conclude that exposure to SSRIs during pregnancy was not significantly associated with cardiac malformations reported so far and blamed the previous findings to biases described above [38].

On the other hand, it has been reported an association between the use of SSRIs and persistent pulmonary hypertension in the newborn. A recent meta-analysis concludes that although the risk cannot be determined, it is very small, less than 1%, and if pregnant woman needs pharmacological treatment, this low risk does not support its discontinuation or lowering the dose of her antidepressant [39].

Another meta-analysis recently published reaches similar conclusions to those described, adding that other SSRIs widely used as sertraline and citalopram are not associated with increased risk of foetal malformations [40]. The review concludes that the only recommendation to keep in mind is that you should avoid as far as possible fluoxetine and paroxetine in the first trimester of pregnancy or among those

women planning to become pregnant. The added risk is very low with both medications and should always assess the risk of untreated illness.

In a cohort study, Huybrechts et al. conclude that the use of SSRIs during the first trimester of pregnancy does not suppose an increase in cardiovascular risk [41].

### 22.4.1.2 Serotonin-Norepinephrine Reuptake Inhibitors (SNRIs)

In relation to the SNRIs, there are less data, and perhaps the most studied drug during pregnancy has been duloxetine. Duloxetine is approved in many countries for treatment of major depressive disorder, general anxiety disorder, diabetic peripheral neuropathic pain and fibromyalgia. Since it was marketed, millions of women have received duloxetine, with many of them of childbearing age. Duloxetine crosses the placenta and passes into breast milk [42]. In a preliminary work published in 2012, they were recorded the pregnancy outcomes of 208 pregnant women taking duloxetine. It was found that malformation rates were similar to those of pregnant women treated with other antidepressants and women who were taking no medication (p = 0.991), so that, although the sample size is not enough to detect rare malformations, the study results suggest that duloxetine does not appear to increase the baseline risk of major malformations [43].

More recently, a record-linkage study done by Eli Lilly and Company concludes that there is a slightly higher but not significantly proportion of abnormal pregnancy outcomes in those women taking duloxetine during pregnancy but probably due to a bias towards reporting abnormal versus normal outcomes. There is also a higher prevalence of risk factors for abnormal pregnancy outcomes, including smoking and alcohol use, in depressed women than in general population [44]. Indeed, in this study, more women with abnormal pregnancy outcomes had a history of using concomitant medications with positive evidence of human foetal risk (benzodiazepines, non-steroidal anti-inflammatory drugs, anticonvulsants and angiotensin-converting enzyme inhibitors). In summary, the frequency of abnormal outcomes reported in duloxetine pregnancy cases is generally consistent with the rates in general population.

The limited information available in the literature about mirtazapine use during pregnancy suggests that there is no evidence that this drug increases the risk of major foetal malformations [45]. In general, mirtazapine is more likely to cause weight gain or increased appetite, so these effects will be appropriate in those depressed women with severe loss of weight or appetite. Mirtazapine is sometimes used in combination with SSRI drugs for treatment of major depression or panic disorders including symptoms of severe nausea, insomnia and decreased appetite [46].

There are few studies regarding the use of venlafaxine during pregnancy. Perhaps the study that includes a larger sample is the one carried out by Olen et al. [47], which analysed a cohort of women exposed to venlafaxine from the month before conception and at least during the first 3 months of pregnancy. The study finds that perinatal exposure to venlafaxine might be related to with certain birth defects,

principally anencephaly, cleft palate and some heart defects; however the study has the limitation of small sample size of exposed pregnant women. In a previous study, comparing exposure to venlafaxine with SSRIs, they found not increased risk of birth defects overall or for cardiovascular defects in particular, but the study included a small number of women [48]. Further studies are needed to confirm or not these results.

A review of 29 studies concludes that venlafaxine seems to be a secure drug during pregnancy. We have few data about the security of venlafaxine and duloxetine during breastfeeding so more studies are warranted [49].

### 22.4.1.3 Bupropion

Overall, 10–20% of pregnant women smoke, being a great public health problem. Smoking cessation drugs such as nicotine replacement therapy (NRT), varenicline and bupropion are affective for pregnant women [50], but, to date, they are not recommended as a first option, because their efficacy and safety have not been yet established. In the meta-analysis done by Myung et al., assessing NRT and bupropion, only one of the included studies used bupropion [51]; thus, further studies are warranted to explore this issue. There is insufficient evidence to determine if NRT is effective and safe or not when used for smoking cessation in pregnancy [50]. In a more recent review article of the Cochrane Database, Hajek et al. include six studies using bupropion in pregnant women trying to quit tobacco consumption, and they found no significant effect (RR 1.15, 95% CI 0.98–1.35) [52].

Besides failing to show efficacy in smoking cessation, use of bupropion in the first trimester of pregnancy has been associated with an increased incidence of cardiac malformations [53].

In summary, if we have a pregnant woman who smokes, she should try to leave the habit through psychological techniques, and if pharmacological interventions are the unique alternative it seems appropriate to use NRT.

### 22.4.1.4 Norepinephrine Reuptake Inhibitors (NRIs)

We have found practically no published information about the use of reboxetine during pregnancy.

## 22.4.1.5 Agomelatine

Due to the good tolerability and low incidence of side effects with agomelatine, we suppose that this drug could be an alternative to consider in the treatment of perinatal depression, but in fact there is still no evidence about it.

### 22.4.1.6 Tricyclic Antidepressants (TCAs)

There are published two case-control studies not founding an increased risk of major congenital malformations or developmental delay after the use of TCAs during pregnancy [54, 55].

### 22.4.1.7 Monoamine Oxidase Inhibitors (MAOIs)

It is not suitable to use MAOIs during pregnancy because of the risk of hypertensive crisis, requirement for dietary restrictions, etc. It has also been described an increased risk of malformations after the use of translycypromine in a small sample of patients. For other MAOIs information is scarce or non-existent.

### 22.4.1.8 Teratogenicity of Antidepressant Drugs

The classification of the drugs in terms of their teratogenicity may vary depending on the system used (FAS, FDA, ADEC) which could lead to confusion. The classification by letters should not be taken as a risk scale but as a guide in the personalised recommendation at each moment.

Most antidepressant medications are classified in the letters C and D. But at no time should we think that the risk is the same within the same group as factors such as drug doses depend. The associated risk is also not the same, ranging from a teratogenic malformation to a delay in foetal growth or a postnatal risk. In any case, the selection of the appropriate medication must be personalised, appropriate to the clinical situation of the patient and always assessing the benefit/risk balance of the drug and of the untreated disease. It would be interesting to consider all fertile women, who require antidepressant treatment, as a potential pregnant or lactating mother to select the most appropriate drugs. We should select drugs of which more experience and data are available so that it is not necessary to change treatment if given the situation. In clinical records, information could be collected regarding the desire to be a mother and a consensus on a treatment programme with the patient and the family [56].

According to the FDA classification, we present in Table 22.2 the teratogenic risk of commonly used antidepressants.

## 22.4.2 Electroconvulsive Therapy

Despite a demonstrated efficacy, ECT still remains a controversial treatment in psychiatry, even more during the pregnancy, when associated risk may be higher [57]. Nonetheless, ECT has a role in the more severe cases of depression during pregnancy. Mainly during the beginning of pregnancy, ECT is indicated when there is a poor nutritional intake, a high risk of suicide, a high level of tormenting thoughts, a history of poor response to drug treatment or a history of good response to ECT. The most common reason to use ECT during the third trimester used to be a patient who has not responded to other treatments. These reasons and the potential teratogenic effects of drugs increase the attractiveness of ECT use in pregnant depressed women, both unipolar and bipolar depression and mixed states.

ECT is safe during all the pregnancy, although it must to be carried out in a hospital to manage possible emergencies. Several early reviews reported no increase in risk of labour complications after the use of ECT [58]. The Collaborative Perinatal Project did not find an excess of malformations in newborns who's mothers were treated with ECT during the procedure [59].

**Table 22.2** Teratogen risk according to the categorisation of the FDA

| Chemical name | FDA classification |
|---------------|--------------------|
| Amitriptyline | D                  |
| Bupropion     | В                  |
| Citalopram    | С                  |
| Clomipramine  | С                  |
| Doxepin       | С                  |
| Duloxetine    | С                  |
| Escitalopram  | С                  |
| Fluoxetine    | С                  |
| Fluvoxamine   | С                  |
| Imipramine    | D                  |
| Maprotiline   | В                  |
| Mirtazapine   | С                  |
| Paroxetine    | D                  |
| Sertraline    | С                  |
| Trazodone     | С                  |
| Trimipramine  | С                  |
| Venlafaxine   | С                  |

- B: Reproduction studies in animals indicate no risk to the foetus, but there are no controlled studies in pregnant women; or reproductive studies with animals have shown adverse effects (other than decrease in fertility) that are not confirmed in controlled studies in pregnant women in the first trimester (and there is no obvious risk in later trimesters)
- C: Studies in animals have revealed adverse effects on the foetus (teratogenic in the embryo or other) but no controlled studies in women; or there are not studies available neither in women nor animals. Drugs should be given if the potential benefit justifies the potential risk to the foetus
- D: There is positive evidence of human foetal risk but is accepted for use in pregnant women despite the risk (e.g. if the drug is needed for a life-threatening situation or for a serious disease which cannot be prescribed drugs safer or they are ineffective)

Summarising ECT may be a safe treatment during the first trimester of pregnancy. In the second and third trimester, ECT is recommended when medications do not control the illness or when a history of good response to ECT in a previous episode exists.

## 22.4.3 Psychotherapy Interventions

Despite the apparent risks of medical interventions, the literature on the effectiveness of talking therapy-based interventions for antenatal depression remains limited. On the one hand, cognitive behavioural therapy has been validated for depression but without specific evidence on efficacy for pregnant women. On the other hand, it has been shown that interpersonal psychotherapy facilitates the reduction of depressive

symptoms in these women [60], probably because of the emphasis given by this model to changing roles, the transition among states and the acquisition of new skills through life.

A recent study [61] carried out an experience group with women (some pregnant and others in their postpartum period) trying to give them space to express their thoughts and feelings about motherhood. Expectations, moods and feelings about their daily lives were explored. Likewise, the opportunity was offered to build a vision of pregnancy in which they included their own needs. These authors allowed women to claim their life, maternity and health goals. The results confirmed that the intervention improved symptoms of low mood of the participants in all cases, especially pregnant women.

A review by Mohapatra et al. suggests that an integral part of preventing and treating depression during pregnancy is a preconception screening for depression assessing mood and family history [62]. They propose that while education around this often taboo subject is vitally important, preconception screening is somewhat impractical in terms of unplanned pregnancy and for individuals from a low socioeconomic status or who already have a psychiatric diagnosis and avoid treatment.

Other psychotherapeutic treatment options include mindfulness-based cognitive therapy (MBCT) and physical therapy approaches such as prenatal yoga. The argument for MBCT for the prevention of depressive relapse or reoccurrence is widely clinically accepted as beneficial for women who have previously suffered from depression as it is based around the teaching of skills such as the practice of mindfulness meditation and cognitive behavioural therapy, with the aim of reducing the risk of depression during this important phase of a woman's life [63]. A study by Battle et al. carried out in 2015 has suggested prenatal yoga as a viable option in addressing antenatal depression, one that may have advantages in terms of greater acceptability than standard depression treatments [64]. The study showed significant reduction in depressive symptoms in the participants throughout the 10-week study. However, something to consider is whether the benefits were a product merely of the physical activity and meditation included in yoga or whether having a community of women in a similar position in a safe space where there were no judgements or stigma around depression elevated some of the symptom reductions. That being considered, it makes an even greater case for more education around the subject of depression during pregnancy and the importance of creating communities in which it can be treated not only pharmacologically but socially.

### 22.5 Clinical Approach to Major Depression During Pregnancy

The initial step would involve treating all women of childbearing age and or pregnant or if it were to be. When we think about treating a woman of childbearing age with major depression, the treatment will be administered over a long period of time, so we should question the patient about her plans for future pregnancy, to be taken into account from the beginning.

Treatment options should include the depressive history of the patient. So, patients in treatment without symptoms during the last year, and a not severe history of depressive episodes, could be candidates to stop medication (obviously in a gradual manner) some months before getting pregnant. They should be monitored often to detect or prevent a relapse. Women with suicidal behaviour or severe episodes would not leave the treatment.

If depression occurs during pregnancy, its intensity will determine the treatment. If the depression is mild, we could try non-pharmacological treatments such as psychotherapy. But if the depression presents itself with insomnia or suicidal risk is not even mild, therefore pharmacological treatment will be indicated.

In order to choose an antidepressant, it must be taken into account the previous history of drug response in this patient and if breastfeeding is included in her plans. Actually the most used ones are the SSRIs, specifically fluoxetine, because it is the drug for which there exists more evidence of use. But fluoxetine is not the drug of choice if the mother is going to use breastfeeding. In this case, sertraline has a favourable profile in pregnancy and is safe during breastfeeding. Citalopram has been more studied during pregnancy than sertraline, but it crosses the BBB in a more extent way; therefore, it is considered as a second option or a first one if there is a history of good response to citalopram.

TCAs are also a safe option, but due to their side effects, they are considered as a second-line alternative, in case of non-response to the ones aforementioned.

ECT is a safe and effective alternative, and according to APA [65], it can be used in the primary treatment of depression during the first 3 months of pregnancy. As ECT can promote uterine contractions, proper coordination with obstetrics is essential.

### 22.6 Fatherhood and Pregnancy

Traditionally, especially in patriarchal societies, it has been believed that the father's role during pregnancy, childbirth and early childhood is less important than women's, because the emphasis falls on the mother-child binomial [66]. Directly or indirectly, men have been excluded from the sexual and reproductive health for a long time and, in particular, from pregnancy and birth [67]. Their role has been limited to the protection and providing help [68]. Although today it is still common for health systems and social circles that the woman places the father in a secondary role, in industrialised societies this attitude is changing, and fathers have begun to be increasingly involved in these processes. The maternity/paternity project is almost always a consensus decision made by both members of the couple. The active involvement of men in the reproductive aspects of their partners fosters a needed change in gender conceptions.

Fatherhood is also a fundamental part of men's identity. Social role studies described how fatherhood can be the point at which they achieve maturity by acquiring a 'public identity' as a representative of a family group. It operates as a structuring element of duty in their life cycle [69]. However, the practice of fatherhood is presented as a right or a free choice and not as an imposition as in case of maternity [70].

Man lives the gestation process from another perspective. Although involved in their partner's pregnancy, they sometimes have difficulties in imagining the future baby as a real human being. Many men can feel confused and ambivalent about what is expected of them during pregnancy. Although feeling happy in their general consciousness, it is also common that they will experience fear anxiety about the future simultaneously to this. It have been reported common concerns involving what is to be a father, how they have to behave and whether they could provide for their child and family [66]. The demands of responsibility, protection and control defined in their role can confront the father with their self-perceived capacity to occupy that 'socially relevant' place. In addition to that, data suggest that first-time fathers show higher levels of anxiety and depression between the fourth and eighth month compared to men with previous experience [71].

At the end of pregnancy, most of the attention is directed to the pregnant mother but after birth the attention is mainly focused on the baby. Relatives look after the mother, while nobody shows an explicit concern for the father [66]. How many times people ask for him? How many people are interested in their preparation for parenthood? It could be necessary to think about how they can experience it and how, from a 'less important' position, they may have felt during the 9 months in which it is expected the arrival of a son/daughter.

### 22.7 Fatherhood Depression During Pregnancy

Recently, due to the sociocultural changes in the conceptualisation of paternity, fathers have been included in the studies on pregnancy and depression. The results suggest that fathers with depressive tendencies suffer more symptoms of depression and anxiety during pregnancy than parents without those traits. It was also noted that these symptoms do not differ from the symptoms of depression and anxiety during pregnancy identified in depressed mothers [72]. However, the rates of parental depression for fathers tended to be lower than for the mothers during pregnancy which is perhaps a result of hormonal influences together with cultural factors already described in this chapter. With regard to men, the higher peak of distress seems to be around the second term of pregnancy (18%), decreasing steadily after birth [73].

Another study found an interaction between depressive symptoms of the father and the mother [74]. It was observed that the presence of depressive symptoms in the father directly affects the mental health of the mother, increasing her risk of depression. Therefore, identifying and treating fathers who suffer from depression in the prenatal period must be a priority in order to increase their psychological wellbeing and to prevent the negative influence that they may have on the mood of the prenatal mother and the unborn child [75].

The active participation in the gestational process has a favourable impact in the construction of fatherhood and generates a healthy emotional environment for him and his partner [67]. The WHO conducted in 2007 [76] a compilation of several group interventions made with fathers in the field of health which specifically aims

was to prevent gender inequality. These group experiences tried to train men in sexual and reproductive health, as well as transform the role of men in relation to paternity.

Finally, we will talk about the couvade syndrome. Currently, this term is used in psychiatry to describe psychosomatic manifestations in men during their partner's pregnancy or during the postpartum period. Sometimes, they have common pregnancy symptoms such as weight gain, morning nauseas, fatigue, and mood disturbances. They reproduce expected symptoms of a pregnant woman. Not many studies make reference to this syndrome, but it has described a wide range in its prevalence (13–97%). Therefore, it may be more useful to think that almost all parents manifest any symptoms but not the syndrome per se which would imply that we are in front of a dimensional phenomenon [66]. Although no one knows for sure what its causes are, it have been proposed different theories: some authors suggest that the father envies the protagonist role of the woman during pregnancy; others propose that it occurs an identification the mother in a emphatical way and others consider that the anxiety of the father is the origin of these unusual symptoms.

In any case, this phenomenology is interesting from the point of view of this chapter. The need to understand these events leads us beyond the purely biological aspects (which is what it has been used to justify the psychopathological disturbances of women), reinforcing the idea that pregnancy, for both man and woman, is much more than the process of creating a new life.

#### 22.8 Conclusion

Pregnancy, apart from being a physiological process, means breaking into the place that is given to the mother and the father: a new individual, family and social reality.

Despite the cultural changes in the last decades, even today, the attributions associated with each sex in the conception of maternity and paternity are still alive in the social mind. However, the psychiatric epistemology forgets how men and especially how contemporary women face and manage those representations that have incorporated themselves and the effects they can have on their mental health.

Despite the evidence, the reality is that health policies give to the biological issues the main point of the different situations and maternal attitudes during pregnancy. Research and knowledge of mental health assume that social elements such as violence, poverty and lack of support are risk factors of psychopathology in pregnant women. However, there are not both treatment and prevention interventions focused on them.

We should consider the emotional connotations of what it means to be a mother and father in the societies with strong patriarchal legacy. This situation could include in the practical clinical different issues (previously neglected) in the understanding of gestational mental health.

#### References

- 1. World Health Organization (WHO). A message from the Director General. 2001. Available from: http://www.who.int/whr/2001/dg\_message/en/index.html.
- 2. Real KA. A womb of her own. New York: Routledge; 2017.
- 3. Enrique JM. Depresión en el embarazo y el puerperio. Rev Chil Neuropsiquiatr. 2010;48(4):269–78.
- 4. Oppenheim G. Psychological disorders in pregnancy. In: Priest R, editor. Psychological disorders in obstetrics and gynaecology. London: Butterworths; 1985.
- Smith RP. Netter: Obstetricia, Ginecología y Salud de la Mujer. 1st ed. Barcelona: Masson; 2006.
- 6. Enrique JM. Depresión postparto: aspectos antropológicos y transculturales. Psykhe. 1996;5(2):149–57.
- Cloninger S. Cattell y los cinco grandes: Teorías analítico-factoriales de los rasgos. In: Cloninger S, editor. Teorias de la personlaidad. Mexico: Pearson Education; 2003. p. 227–74.
- 8. Rich A. Of woman born. Motherhood as experience and institution. New York: Norton; 1995.
- 9. De Beauvoir S. El Segundo Sexo. Buenos Air Siglo XIX. 1999.
- Chodorow NJ. The reproduction of mothering. Berkeley, CA: University Of California Press; 1999.
- Imaz E. Convertirse en madre. Etnografia del tiempo de gestacion. Madrid: Col Feminismos Ediciones Catedra; 2010.
- Draper H. Marx and Engels on Women's Liberation. International Socialism. 1970. Retrieved 29 Nov 2011.
- 13. Bettelheim B. Symbolic wounds: puberty rites and the envious male. New York: Collier; 1968.
- 14. Benedek T. The organisation of the reproductive drive, international. J Psychoanal. 1960;41:1–15.
- 15. Benedek T. Discussion of Mary Jane Sherfey: the evolution and nature of female sexuality in relation to psychoanalytic theory. J Am Psychoanal Assoc. 1968;16:424–48.
- 16. Winnicott DW. The theory of the parent-infant relationships. Int J Psychoanal. 1960;41:585–95.
- 17. Rossi AS. Transition to parenthood. J Marriage Fam. 1968;30:26–39.
- 18. Muruaga S. La Depresion Postparto: Una Forma de Depresion de Genero. 'La boletina', vol. XXIX. Revista Publicada for Mujeres para la salud. Atencion especializada a mujeres AMS. 2009. Available from: http://www.mujeresparalasalud.org/spip.php?article43.
- Toronto LK, Ponder J, Davisson K, Kelly MK. A womb of her own: women's struggle for sexual and reproductive autonomy. London: Routledge; 2017.
- 20. Balsam RH. Women's bodies in psychoanalysis. New York: Routledge; 2012.
- Langevin A. Pour une nouvelle reflexion sur les ages de la vie. In: Lagenvin A, editor. Ces Maternites que l'on dit tardives. Paris: Robert Laffont; 1982.
- 22. Lasen A. Le Ddevenir femenin des temporalites juveniles. In: Lagenvin A, editor. Coord, Temporalites du social, vol. 24: Cahiers du Genre; 1999. p. 99–114.
- 23. Malenfant R. Concilier travail et maternite: unsens, des pratiques, des effets. In: Francine D, Christine C, editors. Espaces et temps de maternite. Montreal: les editions du Remue-Menage; 2002.
- 24. Fox AB, Quinn DM. Pregnant women at work: the role of stigma in predicting women's intended exit from the workforce. Psychol Women Quart. 2014;39:226–42. https://doi.org/10.1177/0361684314552653.
- 25. Gisbert M. Mujer y sociedad: Evolución de la mujer en la sociedad y mundo laboral del siglo XX. Realidad actual de al mujer en España. La igualdad. Mujer y trabajo en el siglo XXI: estudios y prevención de riesgos laborales. Santander: Universidad Internacional Menéndez Pelayo; 2007.
- 26. Kaplan DA. The self in relation: a theory of women's development. In: Jordan JV, Kaplan AG, Miller JB, Stiver LP, Surrey JL, editors. Women's growth in connection: writings from the Stone Center. New York: Guildford; 1991. p. 51–66.

- Jack DC. Silencing the self. Woman and depression. Cambridge, MA: Harvard University Press; 1991.
- Nicolson P. Post-natal depression: psychology, science and the transition to motherhood. London: Routledge; 1998.
- Lewis SE. Constructions of identity, subjectivity and depression in women. In: Paper presented at the 58th annual convention of the Canadian Psychological Association, Toronto, ON. 1997.
- Ross LE, Grigoriadis S, Mamisashvili L, Vonderporten EH, Roerecke M, Rehm J, Dennis CL, Koren G, Steiner M, Mousmanis P, Cheung A. Selected pregnancy and delivery outcomes after exposure to antidepressant medication: a systematic review and meta-analysis. JAMA Psychiat. 2013;70:436–43.
- 31. Koren G, Nordeng HM. Selective serotonin reuptake inhibitors and malformations: case closed? Semin Fetal Neonatal Med. 2013;18:19–22.
- 32. Howland RH. Antidepressant medication and pregnancy: time for randomized controlled trials. J Psychosoc Nurs Ment Health Serv. 2013;51:11–4.
- Mitchell J, Goodman J. Comparative effects of antidepressant medications and untreated major depression on pregnancy outcomes: a systematic review. Arch Womens Ment Health. 2018;21(5):505–16.
- 34. GlaxoSmithKline. Epidemiology study: paroxetine in the first trimester and the prevalence of congenital malformation. 2013. http://ctr.gsk.co.uk/summary/paroxetine/studylist.asp.
- 35. US Food and Drug Administration. FDA Public Health Advisory: Paroxetine. 2013. http://www.fda.gov/cder/drug7advisory/paroxetine200512.htm.
- Wurst KE, Poole C, Ephross SA, Olshan AF. First trimester paroxetine use and the prevalence of congenital, specifically cardiac, defects: a meta-analysis of epidemiological studies. Birth Defects Res A Clin Mol Teratol. 2010;88:159–70.
- 37. Bar-Oz B, Einarson T, Einarson A, Boskovic R, O'Brien L, Malm H, Berard A, Koren G. Paroxetine and congenital malformations: meta-analysis and consideration of potential confounding factors. Clin Ther. 2007;29:918–26.
- 38. Jiménez-Solem E, Andersen JT, Petersen M, Broedbaek K, Jensen JK, Afzal S, Gislason GH, Torp-Pedersen C, Poulsen HE. Exposure to selective serotonin reuptake inhibitors and the risk of congenital malformations: a nationwide cohort study. BMJ Open. 2012;2(3):18.
- 39. 't Jong GW, Einarson T, Koren G, Einarson A. Antidepressant use in pregnancy and persistent pulmonary hypertension of the newborn (PPHN): a systematic review. Reprod Toxicol. 2012;34:293–7.
- Myles N, Newall H, Ward H, Large M. Systematic meta-analysis of individual selective serotonin reuptake inhibitor medications and congenital malformations. Aust N Z J Psychiatry. 2013;47:1002–12.
- 41. Huybrechts KF, Palmsten K, Avorn J, Cohen LS, Holmes LB, Franklin JM, Mogun H, Levin R, Kowal M, Setoguchi S, Hernández-Díaz S. Antidepressant use in pregnancy and the risk of cardiac defects. N Engl J Med. 2014;370(25):2397–407.
- 42. Boyce PM, Hackett LP, Ilett KF. Duloxetine transfer across the placenta during pregnancy and into milk during lactation. Arch Womens Ment Health. 2011;14:169–72.
- 43. Einarson A, Smart K, Vial T, Diav-Citrin O, Yates L, Stephens S, Pistelli A, Kennedy D, Taylor T, Panchaud A, Malm H, Koren G, Einarson TR. Rates of major malformations in infants following exposure to duloxetine during pregnancy: a preliminary report. J Clin Psychiatry. 2012;73:1471.
- 44. Hoog SL, Cheng Y, Elpers J, Dowsett SA. Duloxetine and pregnancy outcomes: safety surveillance findings. Int J Med Sci. 2013;10:413–9.
- 45. Gentile S. Drug treatment for mood disorders in pregnancy. Curr Opin Psychiatry. 2011;24:34–40.
- Uguz F. Low-dose mirtazapine in treatment of major depression developed following severe nausea and vomiting during pregnancy: two cases. Gen Hosp Psychiatry. 2013;10:S0163–8343.
- 47. Olen KN, Rasmussen SA, Riehle-Colarusso T, Reefhuis J. Association between reported venlafaxine use in early pregnancy and birth defects, national birth defects prevention study, 1997–2007. Birth Defects Res A Clin Mol Teratol. 2013;97:28–35.

- 48. Oberlander TF, Warburton W, Misri S, Riggs W, Aghajanian J, Hertzman C. Major congenital malformations following prenatal exposure to serotonin reuptake inhibitors and benzo-diazepines using population-based health data. Birth Defects Res B Dev Reprod Toxicol. 2008;83:68–76.
- 49. Bellantuono C, Vargas M, Mandarelli G, Nardi B, Martini MG. The safety of serotonin-noradrenaline reuptake inhibitors (SNRIs) in pregnancy and breastfeeding: a comprehensive review. Hum Psychopharmacol. 2015;30(3):143–51.
- Coleman T, Chamberlain C, Davey MA, Cooper SE, Leonardi-Bee J. Pharmacological interventions for promoting smoking cessation during pregnancy. Cochrane Database Syst Rev. 2012;9:CD010078.
- Myung SK, Ju W, Jung HS, Park CH, Oh SW, Seo H, Kim H. Efficacy and safety of pharmacotherapy for smoking cessation among pregnant smokers: a meta-analysis. BJOG. 2012;119:1029–39.
- 52. Hajek P, Stead LF, West R, Jarvis M, Hartmann-Boyce J, Lancaster T. Relapse prevention interventions for smoking cessation. Cochrane Database Syst Rev. 2013;20:8.
- 53. Thyagarajan V, Robin Clifford C, Wurst KE, Ephross SA, Seeger JD. Bupropion therapy in pregnancy and the occurrence of cardiovascular malformations in infants. Pharmacoepidemiol Drug Saf. 2012;21:1240–2.
- 54. Patel BN, Beste J. Antidepressant use during pregnancy. Am Fam Physician. 2011;83:1211-5.
- 55. Pariante CM, Seneviratne G, Howard L. Should we stop using tricyclic antidepressants in pregnancy? Psychol Med. 2011;41:15–7.
- 56. José Zardoya M, Prieto M, Oraá R, Malo P, Uriarte JJ, Medrano J, Pacheco L. Medicamentos en el embarazo Clasificaciones teratogénicas y otras fuentes de información. Psiq Biol. 2017;24(2):49–54.
- 57. Saatcioglu O, Tomruk NB. The use of electroconvulsive therapy in pregnancy: a review. Isr J Psychiatry Relat Sci. 2011;48:6–11.
- 58. Abrams R. Electroconvulsive therapy. 4th ed. New York: Oxford University; 2002.
- Walker R, Swartz CM. Electroconvulsive therapy during high-risk pregnancy. Gen Hosp Psychiatry. 1994;16:348–53.
- Spinelli M, Endicott J. Controlled clinical trial of interpersonal psychotherapy versus parenting education program for depressed pregnant women. Am J Psychiatry. 2003;160:555–62.
- 61. Chavez-Courtois M, Hernandez-Maldonado A, Arce Zacarías E, Bolaños-Delfin I, González Pacheco I, Lartigue Becerra T. Experiencia grupal de mujeres embarazadas y en etapa postparto, y su relación con la depresión y algunos factores sociales. Perinatol Reprod Hum. 2008;22:270–8.
- 62. Mohapatra S, Yaduvanshi R, Agrawal A, Gupta B. Treatment of depression during pregnancy. Delhi Psychiatric J. 2013;16(2):277–82.
- 63. Dimidjian S, Felder JN, Brown AP, Goodman SH, Gallop R, Beck A. Staying well during pregnancy and the postpartum: a pilot randomized trial of mindfulness-based cognitive therapy for the prevention of depressive relapse/recurrence. J Consult Clin Psychol. 2016;84(2):134–45.
- 64. Battle CL, Uebelacker LA, Magee SR, Sutton KA, Miller IW. Potential for prenatal yoga to serve as an intervention to treat depression during pregnancy. Womens Health Issues. 2015;25(2):134–41.
- 65. American Psychiatric Association, Committee on Electroconvulsive Therapy. The practice of electroconvulsive therapy, recommendations for treatment, training, and privileging: a task force report of the American Psychiatric Association. Washington, DC: American Psychiatric Association; 2001.
- 66. Maldonado-Durán M, Lecanne Elier F. El padre en la etapa perinatal. Perinatol Reprod Hum. 2008;22:145–54.
- 67. García D, Díaz Z. Anthropological and gender perspective in the analysis of care provided to pregnancy, delivery and puerperium. Revista Cubana de Salud Pública. 2010;36(4):330–6.
- 68. Figueroa JG. Algunos elementos para interpretar la presencia de los varones en los procesos de salud reproductiva. Cad Sáude Pub. 1998;1(14):87–96.

- Olavarria J. Y todos querían ser (buenos) padres. Varones de Santiago de Chile en conflicto. Lom Ediciones: Santiago; 2001.
- Montes-Muñoz MJ. Las culturas del nacimiento. Representaciones y prácticas de las mujeres gestantes, comadronas y médicos. PhD thesis. Tarragona: Universitat Rovira i Virgili; 2007.
- Ferkeitch SL, Mercer RT. Predictor of role competence for experienced and inexperienced fathers. Murs Res. 1995;44:89–95.
- 72. Field T, Diego M, Dieter J, Hernandez-Reif M, Schanberg S, Kuhn C, Yando R, Bendell D. Prenatal depression effects on the fetus and the newborn. Infant Behav Dev. 2004;27:216–29.
- 73. Condon JT, Boyce P, Corkindale CJ. The First-Time Fathers Study: a prospective study of the mental health and wellbeing of men during the transition to parenthood. Aust N Z J Psychiatry. 2004;38(1–2):56–64.
- 74. Field T, Diego M, Hernandez-Reif M, Figueiredo B, Deeds O, Contogeorgos J, Ascencio A. Prenatal paternal depression. Infant Behav Dev. 2006;29(4):579–83.
- 75. Buist A, Morse CA, Durkin S. Men's adjustment to fatherhood: implications for obstetric health care. J Obstet Gynecol Neonatal Nurs. 2003;32(2):172–80.
- 76. Barker G, Ricardo C, Nascimento M. Cómo hacer participar a los hombres y los niños en la lucha contra la inequidad de género en el ámbito de la salud: Algunos datos probatorios obtenidos de los programas de intervención. Geneva: OMS; 2007. Available from: http://www.who.int/gender/documents/Men-SPAN.pdf.



**Perinatal Depression** 

23

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#### **Abstract**

Postpartum depression, now named perinatal depression (PND) by the DSM-5, is the most common psychopathologic disorder in postnatal period reaching 15% of incidence. It represents a considerable problem to the health and well-being of women, newborn, and their families. In the last few years, this disorder has been considered a public health problem.

It involves the development of a major depressive episode whose onset can occur during pregnancy or within 4 weeks after giving birth and depressive symptoms must be present for at least 2 weeks. But in the clinical practice, it's considered that postpartum depression can also onset from pregnancy to 3–6 months postpartum (Wisner et al. 2002), although it is more common in the postpartum.

Several pathogenic mechanisms have been identified as related with the pathogenesis of PND, like social, psychological, and biological factors. However, etiology remains unclear. It is important to educate both professionals and mothers about the risk factors for an early detection to prevent developing a depression, since there are still many cases of postnatal depression that are not detected in clinical practice. This can lead to deleterious consequences for the mother and for the baby because it can delay the physical, social, and cognitive development of the baby.

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The treatment of depressed women in the peripartum period is a high priority issue because of the potential positive effects not just for the mother but also for the child. It may contemplate both psychological and psychopharmacological approaches with special considerations about using drugs in pregnant/breast-feeding women.

#### 23.1 Introduction

Even though women have the same prevalence of psychiatric disorders as men in most of the countries, there are some differences on psychiatric diagnosis made by sex. Epidemiologic studies show rates twice as high on depressive and anxiety disorders on women more than men. Biology explains some differences on diagnosis, but mental illnesses are influenced both by biological and psychosocial factors.

The rates of depressive disorders increase on women during maternity. This is a very stressful period because of the physical, emotional, and role changes they experiment, for example, the breastfeeding period, transformation on the couple relationship, and the familiar structure [1, 2].

Perinatal depression (PND) has negative outcomes in the mother, in her partner, and in the newborn, so early detection and treatment nowadays must be a priority for public health.

### 23.2 Depressive Disorders in the Perinatal Period

The most common psychopathologic disorders during pregnancy and postnatal period are mood and anxiety disorders. There are different forms of depression, from minor and temporary episodes of sadness to more severe and persistent ones.

On the one hand, there is gestational depression that is suffered by 14–23% of the pregnant women [3, 4], from which 3% to 5% are severe cases that if they don't receive any treatment can get worse after delivery [5]. For women with a history of major depression, the risk of relapse during pregnancy is high, especially if the pharmacological treatment has been ceased [6, 7].

Postpartum dysphoria occurs in about 50% of births [8]; it is a transitory mild condition, which remits naturally and usually does not require treatment. It appears in the first hours after childbirth and can last for a few weeks. If this dysphoria lasts for more than 2 weeks, and if there is a history of recurrent depressive episodes, it would require an evaluation to rule out the development of a more severe mood disorder.

Postpartum depression, in which we will focus in this chapter, affects around 15% of mothers and can appear in the first few weeks and even in the year after childbirth. Medical, psychological and pharmacological interventions are required focusing on preserve the ability of the mother to care for her child.

Postpartum psychosis is a severe disease with an incidence of 0.1–0.2% [9] that may appear in the first weeks after birth and has an abrupt start and evolves fast. The characteristic symptoms are depressed or exalted mood, behavioral maladjustment, emotional liability, delusions, and hallucinations. Medical, psychological, and pharmacological interventions are important to avoid its evolvement into a major psychiatric disorder.

### 23.3 Symptoms and Prevalence

In 2013 the American Psychiatric Association changed the name of this condition to peripartum depression in the *Diagnostic and Statistical Manual of Mental Disorders*, *fifth edition (DSM-5)*. That involves the development of a major depressive episode whose onset can occur during pregnancy or within 4 weeks after giving birth [10], and as in other major depressive episodes, depressive symptoms must be present for at least 2 weeks. But in the clinical practice, it's considered that the postpartum depression can also onset from pregnancy to 3–6 months postpartum [11, 12], although it is more common in the postpartum.

The clinical symptomatology is characterized by sadness, anhedonia, tearfulness, fatigue, and anxiety. Also it might appear eating and sleep disorders, loss of energy, and feelings of guilt commonly associated with the care of upbringing a child. These symptoms are also observed in the ordinary postpartum that makes diagnosis more difficult so it is recommended to explore more specific symptoms such as impaired concentration, thoughts of death, or self- or hetero-aggressiveness toward the newborn. Postnatal depression must be carefully distinguished from both normal and other postpartum psychiatric disorders common in this period, among which postpartum dysphoria and puerperal psychosis deserve social attention.

PND occurs between 15% and 20% of all women in childbearing age per year, resulting in approximately 600,000 to 800,000 cases and is one of the most common postpartum complications [13, 14].

However, the prevalence is highly variable, some studies located from zero to almost 60% [15], and also the rates vary between countries and within them [16].

### 23.4 Screening

PND can be effectively treated and prevented [17], but there are still many cases continuing undetected in clinical practice [18, 19]. There are several tools for detecting depression, but few studies have evaluated its use in the postpartum period. One of the most commonly used in the scientific literature has been the Edinburgh Postnatal Depression Scale (EPDS) [20], a 10-item self-report scale to detect depressive symptoms in women who have just given birth, and takes into account the severity of symptoms that have been present in the previous 7 days. It has been translated into several languages and has been used both in clinical practice and in epidemiological studies [21, 22]. It has demonstrated its validity and reliability in

several studies and has been recommended as a screening tool indicating the possible presence of depression in women after birth [23] but not as a diagnostic tool. The diagnosis of PND is done by detailed exploration of signs and symptoms in the context of the clinical interview as PPD must be distinguished both from normal puerperium and from other common psychiatric disorders in this period as the postpartum psychosis and postpartum dysphoria [24–26].

### 23.5 Etiology and Risk Factors

Although there are multiple studies about the etiology of perinatal depression (PND), it still remains unclear. There have been described several factors that can contribute to the development of PND like biological, social, and psychological factors whose likely contribute to varying degrees.

### 23.5.1 Biological Factors

### 23.5.1.1 Hormonal Changes

During pregnancy and postpartum periods, women experience hormonal variations which are aimed to prepare the organism for both childbirth and breastfeeding. The peripartum period is considered the time of the greatest risk for women to develop major depression, and hormonal fluctuations are believed to play an important role in the establishment of depressive symptoms [27].

This change involves variation in hormones such as estrogens, progesterone, testosterone, cortisol, and corticotrophin-releasing hormone, which increases during the 40 weeks of pregnancy and decreases drastically during the childbirth [27–29]. Several research works indicate that those hormonal changes can cause depression in a subgroup of vulnerable women. However, the origin of this sensitiveness has not been clarified yet [30, 31].

### **Gonadal Steroids**

The relationship between changes in progesterone-estradiol levels in perinatal period and the development of PND has been described often. Estrogen levels rise shortly before parturition and then drop dramatically after birth with the expulsion of the placenta. This sudden drop in estradiol and progesterone is believed to predispose vulnerable women to depression [27].

In more than 60% of the cases of women with PND antecedents, low production of these endogenous hormones has been linked with the emergence of depressive symptoms [32]. Some research works also corroborate that high-level estradiol treatments improve PND [33, 34].

On the other hand, there are studies that question the hypothesis of the hypoestrogenism, as some evidences show that some women suffering deep depression have higher estradiol serum concentrations than the mothers affected by PND in the early postpartum [35].

Progesterone has been associated with postpartum dysphoria [36, 37]. However, in PND the evidences are not strong enough. Some researches state that the decrease of progesterone levels coincides with the highest peak of the depressive symptoms in the early postpartum. Other studies, on the contrary, show no change [38] or even an increase of the progesterone [39].

Finally, Lawrie et al. carried out a randomized, double-blinded, placebocontrolled clinical trial that demonstrates that administration of progestogen in the early postpartum increases the risk of PND [40].

### Hypothalamic-Pituitary-Adrenal (HPA) Axis

In addition to the fluctuations in gonadal hormones during pregnancy and postpartum, HPA axis undergoes significant changes during these periods of time.

These three glands, namely, the hypothalamus, the pituitary, and the adrenal gland, operate in a synchronized way thanks to a feedback system linked with immunologic system.

There is evidence that ACTH, CRH, and corticosterone-binding globulin (CBG) levels are altered during pregnancy and postpartum. Also, cortisol levels rise during pregnancy, reach a peak before birth, and drop after birth in rats and humans [41]. Many studies show further differences in alterations of the HPA hormones and their regulation in depressed mothers compared to non-depressed ones, for example, higher ACTH levels and disrupted HPA postpartum reactivity in depressed women or altered diurnal HPA rhythm.

The alterations of the HPA axis that have been observed in depression and during the pregnancy and childbirth are similar. Depressed patients also show abnormal HPA axis function such as hypersecretion of cortisol and abnormal diurnal secretion of cortisol which increases both in plasma and in urine [30]. Nevertheless, not every study finds link between increased cortisol levels and depression, which suggests a complex relationship between them [27].

Considering these changes in the HPA axis during pregnancy and postpartum, several of them common with alterations are found in depressed patients; it is conceivable that these mechanisms could be related with the increased risk of PND in vulnerable women [27].

A different origin and evolution of the depression during the pregnancy and in PND have been pointed out. Thus, normally in PND the HPA axis reduces its activity [42], while in the depression suffered during pregnancy, there is hyperactivity.

Some studies demonstrate how women with PND have a reduced response capacity of the HPA axis compared to the controls [43, 44].

### **Oxytocin Changes**

Oxytocin (OT) has been linked with the childbirth and the breastfeeding period [45], being suggested that it has a positive effect in the mood [46]. It also has been highlighted oxytocin's role in the mother-child attachment and social-cognitive processes [47]. The relationship between OT levels and the presence of depressive symptoms or depressive disorder has been studied several times. Lower plasma OT levels in the third trimester of pregnancy predict postpartum depressive symptoms,

and breastfeeding mothers with depressive symptoms present lower levels of OT during infant feeding.

### **Thyroid Hormones**

A subgroup of PND is found in thyroid dysfunction. Up to 7% of the new mothers experiences alterations in the thyroid system during and after childbirth compared to the 3–4% of the general population [48].

There is a well-described link between the postpartum rebound of TPO-ab titers and clinical thyroid dysfunction. Women with positive TPO-ab status during pregnancy, first-onset postpartum depression may be related to a transient hypothyroid phase of postpartum thyroid dysfunction. Furthermore, having positive TPO-ab status postpartum has been described as predictive for an increase in depressive symptomatology postpartum, regardless of the presence of thyroid dysfunction. An explanation for this phenomenon could be that immune activation postpartum could increase the risk of presenting depression instead of clinical thyroid dysfunction.

A recent study [49] supports that there seems to be a subgroup of women (especially during the first 4 months of pregnancy) in whom dysfunctional thyroid autoimmunity (increased TPO-ab titer) is associated with an increased risk for self-reported first-onset depression.

### 23.5.1.2 Immunological Factors

There have been described also several changes in immune functioning across the peripartum. The activation of the inflammatory response system can be involved in the pathophysiology of PND [50]. This hypothesis states that external stressors, such as psychosocial factors, and internal stressors, such as organic inflammatory conditions that occur during the postpartum period, can trigger depression through the inflammatory processes [51, 52].

Recently it has been identified pro-inflammatory changes at the third trimester of pregnancy which could indicate the presence of an innate immune activation in women with higher levels of depressive symptoms compared with non-depressed group [53].

Also, regulatory T-cell count seems to predict PND, and most studies found an association between cytokines and PND:

- The serotonergic system has a fundamental role in the mood disorders and in the PND treatment. The use of selective serotonin reuptake inhibitors (SSRIs) has shown not only to be effective in PND but also to be well tolerated by the mothers. However, this treatment has not demonstrated to be well above than other treatments [54].
- Epigenetics, genetics, and stress-environment interaction, including the interactions in the early development of the own mother, are factors that have influenced in the propensity for developing PND [55].

A long-term monitoring of the children whose mothers suffered PND shows that they have a tendency four times higher to be depressed than the rest of the population [56]. This fact suggests an intergenerational transference that increases the propensity for depression and PND in the descendants. Apparently, multiple genes take an important role in this vulnerability, but not many studies have researched this subject [57, 58].

Depressive symptoms occurring during the early postpartum period appear to be more closely related to genetic factors than depressive symptoms that occur later in pregnancy.

The influence of genetic factors becomes more consistent when methodological variations of the studies are considered, such as the assessment period, interactions with environmental factors, and the tool used to detect depressive symptoms. Polymorphisms of the serotonin transporter (5-HTTPLR) were the most frequently studied genetic factors in peripartum depression. In the pregnancy period, few studies found positive results with 5- HTTPLR polymorphisms. On the other hand, MAOA- and COMT-related genes at the sixth week postpartum were related to PND [59–62].

#### 23.5.1.3 Obstetrical Complications

Presence of obstetrical complications during pregnancy and partum has been associated with an increased risk of PND. Factors associated were hyperemesis gravidarum [IRR 2.69, 95% confidence interval (CI) 1.93–3.73], gestational hypertension (IRR 1.84, 95% CI 1.33–2.55), preeclampsia (IRR 1.45, 95% CI 1.14–1.84), and cesarean section (C-section) (IRR 1.32, 95% CI 1.13–1.53) [63].

On the other hand, a recent study has shown that women who requested an elective cesarean section had higher antepartum depression and anxiety levels than women who had planned to deliver vaginally. If the request for ECS was granted, their antepartum depression and anxiety levels did not decline, but postpartum depression levels reverted to normal [64–69].

Finally, preterm delivery has been associated with an overall risk for PND [70].

### 23.5.2 Psychological Factors

There are multiple psychological factors that can contribute to increase the risk of PND. Having history of previous psychiatric illness is one of the most studied. The risk of PND has been described 20 times higher for women with a depression history. This relationship has been described stronger in advanced maternal age (>35 years) [70].

Women with a history of depression are particularly vulnerable to depression in the postpartum period, and antenatal depression has been described also as a strongly risk factor for postnatal depression [71, 72]. Bipolar disorder type II may confer a remarkable risk for PND, which may be even higher than that of women affected by type I [73].

In addition, maternal depression history has also been associated with a modifying effect on PND risk factors [70].

Adverse childhood experiences may also increase risk of perinatal psychiatric episodes including PND with an observed dose–response effect [74, 75].

### 23.5.3 Sociodemographic Factors

Sociodemographic factors associated with the onset of PND are multiple, and some of them have shown complex relationship with depressive symptoms in the perinatal period. Age, race, education, and type of medical insurance marital status have been well associated with the onset of perinatal depression [76–78].

The difference in onset based on race has shown a higher proportion of Caucasians.

Maternal age in terms of being adolescent mother is one of the main sociodemographic factors, which increases the risk of PND (OR = 3.14). Moreover, the average age of the mother is described to be higher among mothers with onset during the postpartum period compared to those with an onset during the prepregnancy or prenatal periods. Considering age and history of depression, those young mothers with no history of depression have an increased risk for PND, and those mothers with a depression history have increased risk with advanced maternal age [70].

Other sociodemographic factors related to peripartum depression include fear of childbirth (odds ratio [OR] = 3.8), tobacco use (OR = 3.25), single status (not married or living with a partner; OR = 2.86), lower socioeconomic status (OR = 2.59), age of 40 years or older (OR = 1.41), domestic violence (OR = 3.1), maternal anxiety (OR = 2.7), and unintended pregnancy (OR = 1.41) [79, 80]. Also, primiparity, stressful life events during pregnancy, and conflicts with relatives over child care have been related with PND [72, 81].

#### 23.5.4 Child-Related Factors

Regarding child-related factors, health problems of child, dissatisfaction with child's gender, birth defects in child, and stress with child care have been all associated with PPD [81].

Feeding behaviors also seemed to be associated in terms of problems and maternal depressed mood in the very early postpartum weeks.

Also, infant sleep pattern in terms of infant sleep bouts at 6 weeks have been related with more depressed symptoms in mothers [82–84].

#### 23.5.5 Other Factors

- Diabetes mellitus. Presence of DM has been associated with an increased risk of PND. Moreover, for those with a history of depression, diabetes adds an additional 1.5-fold increased risk for PND. Moreover, gestational diabetes has been strongly associated with increased risk for PND in women regardless of their depression history, while pregestational (type 1 or type 2) diabetes represented an increased risk only in those women with a history of depression [70].
- Retinoid toxicity. An association between the presence of PND and retinoid toxicity has been studied. Vitamin A accumulates in the breast, brain, and liver to

potentially toxic concentrations in the third trimester. Increased levels of vitamin A may impair the mobilization and secretion of retinol-binding protein (RBP), which may cause PND by increasing the levels of circulating retinoic acids and retinyl esters. RBP levels are mentioned as possible predictors of PND during periods in late pregnancy and the first week after delivery [85].

In conclusion, there are multiple variables that contribute to the etiology of PND. All women are prone to develop depression around childbirth. However, those who have certain risk factors have a significantly increased probability of experiencing the illness.

#### 23.6 Effects of Illness

Postpartum depression has not only deleterious consequences for the mother but also for the baby and can delay the physical, social, and cognitive development of the baby [2]. Therefore, it is very important to prevent this disease from the centers of women's care with a multidisciplinary approach.

The interaction disturbances of depressed mothers and their infants appear to be universal, across different cultures and socioeconomic status groups. All mothers have in common that they show less sensitivity and responsibility to the infants [86].

Maternal depression can negatively impact on children [87–89]. The deleterious effect of maternal depression has been probed for different cognitive functions [90], verbal abilities [91], or children's abilities to regulate their own emotions and behaviors [92]. Parenting could often be influenced by the effects of maternal depression, since mothers may exhibit decreased sensitivity in interactions with children and the lack of response to the actions of child [93, 94].

Maternal depression is not the only factor that affects children development; contextual risks also can negatively impact children's cognitive functioning, including executive functions such as attention [95], inhibitory control [96], IQ [97], and language development [98].

The possible impact risks in the context of children's cognitive functioning may be higher in parents with a lower educational level and fewer resources to encourage them cognitively [99].

The interpersonal stress of depressed mothers can negatively affect the well-being of adolescents [100, 101] and children [102].

Consider that early in the life course, the mother constitutes the primary social environment for the child [103].

It is important to highlight the importance that the immediate social environment has in the baby and his experiences; it may be considerable the effect of both maternal depression and contextual risks would have on the children [100].

But postpartum depression has also important consequences in the mother. At this important moment of her life, she is supposed to meet certain expectations, and discomfort caused by not being able to do it is added to the discomfort of depression.

#### 23.6.1 Effects on the Mother

Depression after childbirth affects the woman's feelings about herself and her interpersonal relationships. It is remarkable in the mother-baby relationship, the couple relationship, and relationships with older children and the wider family influenced by the depression of the mother. It is important to note that women with postnatal depression have an increased risk of future depressive episodes. In the postnatal period, an additional challenge for the mother is coping with depression at a time when there is a strong societal expectation that motherhood will be joyful and rewarding [104, 105]. Thus, we do not have to forget that social expectations about motherhood can increase women's reluctance to disclose negative feelings.

### 23.6.2 Effects of Depression on the Child

There are many factors that contribute to healthy development of the child, but development can also be disrupted by many factors. Early relationships are central in promoting healthy social and emotional child development [106]. Having a depressed mother has an impact on cognitive development of the children, including language development and intelligence. All this varies in the child's gender, different social factors, and the timing and course of the mother's depression [107, 108]. It is obvious to think that mother's ability to regulate her baby's state plays an important role in helping children develop strategies for managing their feelings and emotions [87, 109].

Some studies showed that mothers with postnatal depression display more negative behaviors toward their babies and their babies are less positive than babies of non-depressed mothers [82].

#### 23.7 Treatment

Treating peripartum depression is positive not just for the mother (it affects women's wellness, quality of life, and general functioning) but also for the child, since long-term cognitive effects in the kid can be reverted if the mother is correctly treated [110].

The biggest problem is the delay, which depends on the detection, the treatment proposal, and the compliance. There are several barriers against this fact: lack of information about perinatal diseases, attribution of symptoms to postpartum, reticence to reveal emotional problems after childbirth, being afraid of being a "bad mother," etc.

Classically, postpartum depression treatment is based on that of non-peripartum depression [111–113]. Psychotherapy or pharmacotherapy may be used alone or in combination. Because no modality has been shown to be superior to any other [114], some authors argue that the choice of therapy, pharmacologic and/or psychotherapeutic, for mild to moderate postpartum depression may be left to the patient [111, 115].

When treating a perinatal depression, we should inform the patient (and her partner or even family, whoever is going to support the patient during the disease, the pregnancy, and the postpartum) about the known risk of the illness in that context, treated or not.

Both the mother's psychopathological and physical states and the fetus' physical state must be monitored throughout gestation and postpartum, so psychiatric, gynecologic, obstetric, and pediatric teams should be in constant communication.

### 23.7.1 Psychotherapy

Puerperal women may benefit from psychotherapy, as it focuses on the patient's interpersonal relationships and changing roles [116]. Although pharmacological treatment is also an option, because of the relative paucity of information about the safety of antidepressant use during breastfeeding, many women may choose a non-pharmacological treatment to avoid exposing the baby to psychotropic medication.

Evidence suggests that to treat afterbirth depression, the most effective psychological treatments are cognitive-behavioral therapy (CBT) (where we can find the biggest bibliography), interpersonal therapy, nondirective support therapy or counseling, and psychodynamic therapy [117].

During pregnancy, interpersonal therapy and cognitive-behavioral therapy have been studied with contradictory results. However, if we go to guidelines like NICE, both of them are recommended for these patients [117, 118].

The controversy the evidence brings is that for milder depression, being treated in primary care, the response to psychological interventions is big and persistent. On the other hand, the effect of psychological interventions for severe depression has been less studied.

Marriage counseling is warranted when marital conflicts are distressing and perhaps contribute to depression in women.

### 23.8 Psychopharmacological Treatment

### 23.8.1 Psychopharmacology During Pregnancy

There are some general recommendations when treating a pregnant woman: It is important to discuss with the patient and her family the potential risks of the treatment weighed against the risks of a mood disease (for her and for the baby), in order to decide on the best medication. Both the mother's psychopathological and physical states and the fetus' physical state must be monitored throughout gestation. The treatment should be with the minimum, but always effective, doses. We should try to avoid polytherapy, new drugs, and the use of medication during the first trimester to mitigate any teratogenic side effects.

Major adaptive physiologic changes occur in a woman's gastrointestinal, cardiovascular, renal, and other systems during pregnancy. These changes greatly affect the pharmacokinetic processes of drug absorption, distribution, metabolism, and excretion. The changes begin early and continue to fluctuate throughout the third trimester, resulting in about a 50% increase in plasma volume, increased body fat, and increased drug distribution volume, facts that we should take into account when treating a pregnant woman [118].

Patients with a mental disorder are in higher risk of adverse birth outcomes, regardless of causation [119]. Therefore, pregnancies, labors, and postpartum periods in these patients require a stronger surveillance. When labor arrives, these women should give birth in a hospital that has a psychiatry service. They must be monitored by the obstetric team, especially if taking medicines, because physiological changes may lead to maternal or neonatal toxicity. Anesthesia service should be advised too.

Psychopharmacological treatment includes antidepressants as first-choice treatment. This medication is indicated for any woman with a peripartum depression, but especially if they are mild to severe (women who have difficulties caring for herself or even get to have thoughts of harming themselves or the baby) or persistent in time.

Besides antidepressants, a woman with postpartum depression may benefit from treatment with benzodiazepines to treat anxiety or agitation.

When there is no response to antidepressants or benzodiazepines, mood stabilizers, antipsychotics, or electroconvulsive therapy may be indicated.

### 23.8.2 Antidepressants

Exposition to antidepressants during pregnancy has been associated with several risks.

### 23.8.2.1 Teratogenesis

After the GlaxoSmithKline pregnancy registry showed an increased risk of cardio-vascular malformations in 2005, there is a general warning about SSRI (specifically paroxetine). However, the rate of major birth defects in the general population is about 3%, which means that even if antidepressants increase it, in absolute terms the risk would still be very small. In addition, the literature on this subject is complicated by studies' characteristics: small samples, surveillance bias, lack of controls, etc. So, nowadays, the general consensus is that the risk of malformations, if it exists, is small for antidepressants in monotherapy [120].

About cardiovascular malformations, paroxetine seems to be associated with a small risk for general and cardiac malformations (septals specifically) and fluoxetine with cardiac malformations [118].

Studies about bupropion have conflicting results [120]. Other antidepressants (venlafaxine, duloxetine, and mirtazapine) have not being associated with malformations [118].

#### 23.8.2.2 Spontaneous Abortion

Bibliography shows a higher rate of spontaneous abortion when using SSRI or tricyclic antidepressants. However, not treated depressed women also have higher abortion rates, similar to those with antidepressants [120].

### 23.8.2.3 Preterm Birth and Birth Weight

Antidepressants have classically being associated with a higher preterm birth and lower birth weight. With the latest studies, this information is in doubt [120–122].

### 23.8.2.4 Poor Neonatal Adaptation Syndrome (PNAS)

It is still in doubt if it is due to withdrawal symptoms or to drug toxicity when using SSRI and SNRI (serotonin-norepinephrine reuptake inhibitor). Even if the definition is not very clear yet, this syndrome has been associated with respiratory distress, cyanosis, apnea, seizures, feeding difficulty, vomiting, temperature instability, hypoglycemia, hypotonia or hypertonia, tremor, jitteriness, hyperreflexia, irritability, and constant crying [118, 120].

Even 30% of the children exposed to SSRI or SNRI during the third trimester of pregnancy suffer part of the described symptoms. It is usually mild, temporary, and not associated with lasting effects [118, 120].

# 23.8.2.5 Persistent Pulmonary Hypertension of the Newborn (PPHN)

The resistance of the pulmonary vasculature fails to decrease at birth, causing breathing difficulties that may lead to hypoxia. It has been associated with several factors, including exposition to SSRI before the 20th week of pregnancy [123]. However, more recent studies have not confirmed this association.

### 23.8.2.6 Postnatal Effects in Development

This subject has been poorly studied, but latest studies on the subject show that autism in the offspring may be associated with depression disorder on the mother more than with the treatment [121, 124, 125].

Attention-deficit/hyperactivity disorder has not been associated with the use of antidepressants during pregnancy [126].

### 23.8.3 Benzodiazepines

Benzodiazepines (BZDs) are the most used drugs for treating anxiety and insomnia symptoms and are also used as coadjuvants for mood disorders, agitation episodes, hyperemesis gravidarum, and eclampsia and in cases of risk of premature labor.

There is no evidence of major or cardiac malformations if using BZD during pregnancy, but there is an association with minor malformations: cleft lip or cleft palate. This advises against the use of BZD during the first 12 weeks of pregnancy. In case of them being needed, low doses are recommended [118, 127].

Children exposed to high doses of short half-life benzodiazepines at the end of the pregnancy are associated with withdrawal syndrome that includes hypertonia, hyperreflexia, tremor, diarrhea, vomits, or apnea [118].

Another effect associated with high doses of BZD before childbirth is the hypotonic infant syndrome (floppy syndrome) whose symptoms are hypotonia, respiratory difficulties, hypoxia, and feeding difficulties. This appears just after childbirth also and may last for hours or days [118].

Studies do not show long-term effects in children development [118].

The general recommendation would be to use short half-life BZD, such as lorazepam. Lorazepam also shows lower placentary transference (being diazepam the one with the highest). In the case of needing a long half-life BZD diazepam, chlor-diazepoxide and clonazepam are recommended. Flurazepam, quazepam, and tri-azolam should be avoided.

Use the minimum dose divided along the day [118, 126].

High doses (equivalent or higher than 30 mg/day of diazepam) should be avoided.

For the *first trimester of pregnancy*, BZDs should be avoided; if needed lorazepam and clonazepam seem to be the current recommendation. Always use the minimum dose possible.

In the *second trimester*, they may be used. Lorazepam and clonazepam are still the recommendation.

And for the *third trimester*, BZDs should be progressively retired 2 weeks before the labor day. Lorazepam is the latest recommendation but taking into account that its neonatal elimination is slow and may be detected in children's blood even 8 days after delivery [118, 126, 127].

#### 23.8.4 Mood Stabilizers

Antiepileptic drugs, except for lamotrigine, are the medications that show the worst reproductive safety profile [128].

#### 23.8.4.1 Lithium

Relatively, recent updates on the risk of fetal structural malformations associated with lithium exposure suggest that this medication is not a significant human teratogen [57, 129]. Thus, the "historical" fear of cardiac Ebstein's anomaly in lithium-exposed children should be reduced. Lithium is associated with a higher risk of neonatal complications, such as lower Apgar scores, longer hospital stays, and central nervous system and neuromuscular adverse reactions, which are directly related to the level of the drug in serum [128].

It is recommended that ecographic and echocardiographic studies are made at 16 weeks of pregnancy and echocardiographic checkups at 18–23 weeks [127].

Lithium levels should be followed closely during pregnancy, and the dose should be held or reduced with the initiation of labor. Hydration during delivery should be adequate, and the dosage reduced to prepregnancy levels (if it was increased during pregnancy), with close monitoring of serum levels due to the high risk of relapse at that moment [120].

The child's lithium levels should be monitored, so as thyroid, hepatic, and renal functions.

Studies do not show cognitive impairment in children of bipolar mothers treated with lithium during pregnancy [118, 129].

### 23.8.4.2 Valproate

Valproate is *not recommended* as a coadjuvant treatment for depressed women. Observational studies have reported that valproate has a higher teratogenic risk than other antiepileptic drugs. And, this risk is dose dependent [130].

The risk of fetal malformations caused by valproate prenatal exposition is about 11%, and it includes epicanthic folds, medial eyebrow deficiency, a long thin upper lip, a thick lower lip, cardiac malformations, hypospadias, an infraorbital groove, a flat nasal bridge, a short nose with anteverted nares, a small downturned mouth, and spina bifida [120]. The risk of valproate-induced birth defects seems to rise when it is combined with other drugs, especially with lamotrigine or carbamazepine [131].

Valproato intrautero exposition has also been linked to postnatal cognitive development, with a 30–40% reported risk of neurodevelopmental disorders studies show, among other alterations (lower performances in primary and secondary [132] school) and autism spectrum disorders [133] three and five times higher than in the general population [134].

After all the information around the effects of valproate on the fetus was known, many voices raised against its use in young women, pregnant [135] or not [136]. And, the US Food and Drug Administration and the European Medicines Agency issued restrictions on the use of valproate in women of childbearing age and, in the case of the European Medicines Agency, also in girls [137]. In April 2018, the European Medicines Agency's experts in medicines safety, the Pharmacovigilance Risk Assessment Committee (PRAC), recommended new measures to avoid exposure of babies to valproate medicines in the womb. In the case of bipolar disorder, it includes not to use valproate during pregnancy or in female patients able to have children if they don't prevent pregnancy [138].

This warning has been included also in NICE guide, which describes "Do not offer valproate for acute or long-term treatment of a mental health problem in women of childbearing potential. Valproate treatment must not be used in girls and women including in young girls below the age of puberty, unless alternative treatments are not suitable and unless the conditions of the pregnancy prevention programme are met. Valproate must not be used in pregnant women" [139].

### 23.8.4.3 Carbamazepine

Carbamazepine' teratogenicity is discussed; some studies don't associate it with higher malformation rates, but some others do [133]. Carbamazepine-induced malformations are dose dependent [133] and rise when combined with valproic acid [131]. These include epicanthic folds, an orofacial cleft, cardiac malformations, a short nose with hypoplastic nares, a long philtrum, upward slanting palpebral fissures, and spina bifida [128].

Carbamazepine is an enzymatic inductor, which must be taken into account. It is also a competitive inhibitor of prothrombin precursors that may also increase the risk of neonatal hemorrhage. In this case vitamin K may be added to treatment [127].

The recommendation for carbamazepine treatment includes high-dose folate and screening for malformations and therapeutic blood monitoring [120].

### 23.8.4.4 Lamotrigine

Lamotrigine is the antiepileptic that we have more experience of during pregnancy. Several studies have been carried out to measure the risks of lamotrigine in pregnancy. The last information seems to certify that it is not associated with higher malformation risks if dose is kept under 325 mg/day [133, 140].

The problem here arrives because lamotrigine is not properly a stabilizer; it is not approved by the FDA for that purpose. It should be useful when a depressive relapse happens at the end of the pregnancy or if lithium is suspended [127].

### 23.8.5 Antipsychotics

Recent studies about congenital malformations in women exposed in the first trimester to first-generation and second-generation antipsychotics conclude that there is no higher general risk for congenital malformations, particularly for cardiovascular malformations. They do find a little increase with risperidone exposition, even though more studies are required to affirm it [141].

Intrauterine antipsychotic exposition, whether it is first or second generation, is not associated with future cognitive or behavioral functioning abnormalities [120].

What evidence shows is that not using antipsychotics when indicated for serious mental illness poses a much greater risk than prescribing them [120]. However, it seems that pregnant women who require antipsychotic treatment are at higher risk of adverse birth outcomes, regardless of causation, and may benefit from close monitoring and minimization of other potential risk factors during pregnancy [119].

First-generation antipsychotics don't appear to have significant teratogenic effects. Exposure in the third trimester has been associated with extrapyramidal and withdrawal symptoms in the newborn (motor restlessness, hypertonia, or tremor) [120]. This is why the FDA issued a drug safety in 2011 for all antipsychotics.

Second-generation antipsychotics don't seem to be safer to be used in pregnancy, according to evidence. They appear to increase the risk of excessive maternal weight gain, gestational metabolic complications, and increased infant birth weight [142].

Olanzapine and clozapine should be considered as drugs associated with an increase in the risk of metabolic complications in pregnancy (prevalently gestational diabetes) [120].

Clozapine is commonly used during pregnancy, because different studies show a low risk of complications or congenital anomalies [143]. There are anecdotal reports of neonatal convulsions, floppy baby, and gestational diabetes, although the cause-effect relation is doubtful [127, 143, 144].

### 23.8.6 Psychopharmacology During Breastfeeding

In lactation, the aim of the treatment is to minimize infant exposure and adverse effects while maintaining optimal maternal mental health.

The use of SSRI is not contraindicated with breastfeeding, with emphasis in sertraline and paroxetine [114].

The mood stabilizers valproate and carbamazepine are considered suitable during lactation, whereas lamotrigine should be used with caution, and lithium use is not recommended [127, 128]. There are no solid determinations about the risks or benefits of most antipsychotic drugs in breastfeeding, but clozapine and olanzapine should be considered contraindicated during breastfeeding, although further long-term data studies are required [127]. Electroconvulsive therapy can be used safely during breastfeeding if care is taken not to breastfeed the child too soon after the session so that the anesthetics, muscle relaxants, and anticholinergics are not ingested by the infant.

Thus, it is especially important to determine the duration of antidepressant treatment in lactating women [145].

### 23.9 Electroconvulsive Therapy

Electroconvulsive therapy (ECT) is often the treatment of choice for depression during pregnancy as it is recommended by the American Psychiatric Association Task Force on ECT [146]. It has been reported to be a safe and effective option in pregnant women [146]. The few studies that describe ECT in pregnant women report secondary effects of vaginal bleeding and premature uterine contractions, although child development after delivery was normal. It is essential to have proper coordination with obstetric and anesthetic services. Anesthetics used during ECT cross the placenta and fetal blood—brain barrier, but they are not a serious threat owing to the brevity of exposure.

According to NICE guide, ECT should be considered for pregnant women with severe depression, severe mixed affective states or mania, or catatonia, whose physical health or that of the fetus is at serious risk (2014) [139].

#### 23.10 Discussion

In the last few years, this disorder has been considered a public health problem. The WHO-UNFPA [147] has identified maternal mental health as fundamental in achieving the Millennium Development Goals, and the International Marce Society for Perinatal Mental Health [148] proposes a debate on the need for a universal psychosocial assessment and detection of depression in perinatal women in the field of primary health care.

Postnatal depression must be carefully distinguished from both normal and other postpartum psychiatric disorders common in this period, among which are dysphoria and postpartum psychosis. And for this, it is important to have good screening tools to detect the possible presence of these symptoms in order to assess its severity and make a differential diagnosis.

The duration of postpartum depression is not equal in all cases. In some cases it is resolved within a few months of initiation; others however are extended in time [56]. For many women, childbirth is the stress factor that triggers a series of recurrent depressive episodes that may become chronic. After an episode of postpartum depression, the risk of recurrence is 25%, not only in future postpartum periods but throughout their life [149–152].

It is important to educate about the risk factors for both healthcare professionals who have contact with mothers during pregnancy and the mothers itself. Early detection of these factors can prevent the development of depression. Practitioners have to be aware and educated about perinatal depression, so that mothers do not confuse depression symptoms with normal pregnancy process symptoms.

Although the theory of hormonal changes in delivery is based on the influence of endocrine factors on the development of PND, there are contradictory findings in the literature so it is essential to continue researching new hypotheses about how the different causes like psychosocial aspects and gender issues referred in the previous chapter make some women more vulnerable to developing the disease.

We must pay special attention to vulnerable women, such as women with conflictive relationships, which have suffered stressful life events, with lower socioeconomic level or with lack of social support, because they are in higher risk of developing a depression.

Treatment of depressed women in the postpartum period may be different according to the characteristics of the case. Psychotherapy includes cognitive-behavioral therapy (CBT), interpersonal therapy, nondirective support therapy or counseling, and psychodynamic therapy.

Pharmacological treatment is considered for moderate or severe depressions.

The use of antidepressants is not contraindicated during pregnancy or lactation, but the control must be exhaustive. The benefits of taking an antidepressant are probably greater than the risk of psychotropic exposure for both the mother and the child.

#### References

- 1. Burt VK, Stein K. Epidemiology of depression throughout the female life cycle. J Clin Psychiatry. 2002;63(Suppl 7):9–15.
- Gelaye B, Rondon M, Araya R, Williams MA. Epidemiology of maternal depression, risk factors, and child outcomes in low-income and middle-income countries. Lancet Psychiatry. 2016;3(10):973–82.
- 3. Gaynes BN, Gavin N, Meltzer-Brody S, Lohr KN, Swinson T, Gartlehner G, et al. Perinatal depression: prevalence, screening accuracy, and screening outcomes. Evid Rep Technol Assess (Summ). 2005;119:1–8.
- 4. Anokye R, Acheampong E, Budu-Ainooson A, Obeng EI, Akwasi AG. Prevalence of post-partum depression and interventions utilized for its management. Ann General Psychiatry. 2018;17:18.
- 5. Depression: PHQ9 (MacArthur Initiative) (English and Spanish). Community Care of North Carolina [Internet] [cited 2018 Oct 15]. Available from: https://www.communitycarenc.org/depression%3A-phq9-%28macarthur-initiative%29-%28english-%26-spanish%29.

- Bonari L, Pinto N, Ahn E, Einarson A, Steiner M, Koren G. Perinatal risks of untreated depression during pregnancy. Can J Psychiatry. 2004;49(11):726–35.
- Shorey S, Chee CYI, Ng ED, Chan YH, Tam WWS, Chong YS. Prevalence and incidence of postpartum depression among healthy mothers: a systematic review and meta-analysis. J Psychiatr Res. 2018;104:235

  –48.
- 8. Kendell RE, McGuire RJ, Connor Y, Cox JL. Mood changes in the first three weeks after childbirth. J Affect Disord. 1981;3(4):317–26.
- Sit D, Rothschild AJ, Wisner KL. A review of postpartum psychosis. J Womens Health. 2006;15(4):352–68.
- American Psychiatric Association. Diagnostic and statistical manual of mental disorders (DSM-5®). Arlington, VA: American Psychiatric Pub; 2013.
- Wisner KL, Parry BL, Piontek CM. Clinical practice. Postpartum depression. N Engl J Med. 2002;347(3):194–9.
- 12. The management of postnatal depression. Drug Ther Bull. 2000;38(5):33–7.
- Gavin NI, Gaynes BN, Lohr KN, Meltzer-Brody S, Gartlehner G, Swinson T. Perinatal depression: a systematic review of prevalence and incidence. Obstet Gynecol. 2005;106(5 Pt 1):1071–83.
- O'Hara MW, Swain AM. Rates and risk of postpartum depression—a meta-analysis. Int Rev Psychiatry. 1996;8(1):37–54.
- 15. Halbreich U, Karkun S. Cross-cultural and social diversity of prevalence of postpartum depression and depressive symptoms. J Affect Disord. 2006;91(2–3):97–111.
- Affonso DD, De AK, Horowitz JA, Mayberry LJ. An international study exploring levels of postpartum depressive symptomatology. J Psychosom Res. 2000;49(3):207–16.
- Brugha TS, Morrell CJ, Slade P, Walters SJ. Universal prevention of depression in women postnatally: cluster randomized trial evidence in primary care. Psychol Med. 2011;41(4):739–48.
- 18. Dennis C-L. Preventing and treating postnatal depression. BMJ. 2009;338:a2975.
- 19. Biaggi A, Conroy S, Pawlby S, Pariante CM. Identifying the women at risk of antenatal anxiety and depression: a systematic review. J Affect Disord. 2016;191:62–77.
- Cox JL, Holden JM, Sagovsky R. Detection of postnatal depression. Development of the 10-item Edinburgh Postnatal Depression Scale. Br J Psychiatry J Ment Sci. 1987;150:782–6.
- 21. Buist AE, Barnett BEW, Milgrom J, Pope S, Condon JT, Ellwood DA, et al. To screen or not to screen—that is the question in perinatal depression. Med J Aust. 2002;177(Suppl):S101–5.
- Lanes A, Kuk JL, Tamim H. Prevalence and characteristics of postpartum depression symptomatology among Canadian women: a cross-sectional study. BMC Public Health. 2011;11:302.
- Georgiopoulos AM, Bryan TL, Wollan P, Yawn BP. Routine screening for postpartum depression. J Fam Pract. 2001;50(2):117–22.
- Moraes GP, Lorenzo L, Pontes GAR, Montenegro MC, Cantilino A. Screening and diagnosing postpartum depression: when and how? Trends Psychiatry Psychother. 2017;39(1):54–61.
- 25. Ukatu N, Clare CA, Brulja M. Postpartum depression screening tools: a review. Psychosomatics. 2018;59(3):211–9.
- Smith EK, Gopalan P, Glance JB, Azzam PN. Postpartum depression screening: a review for psychiatrists. Harv Rev Psychiatry. 2016;24(3):173–87.
- 27. Brummelte S, Galea LAM. Depression during pregnancy and postpartum: contribution of stress and ovarian hormones. Prog Neuropsychopharmacol Biol Psychiatry. 2010;34(5):766–76.
- 28. Dörr HG, Heller A, Versmold HT, Sippell WG, Herrmann M, Bidlingmaier F, et al. Longitudinal study of progestins, mineralocorticoids, and glucocorticoids throughout human pregnancy. J Clin Endocrinol Metab. 1989;68(5):863–8.
- 29. Stalla GK, Bost H, Stalla J, Kaliebe T, Dörr HG, Pfeiffer D, et al. Human corticotropin-releasing hormone during pregnancy. Gynecol Endocrinol. 1989;3(1):1–10.
- 30. Bloch M, Daly RC, Rubinow DR. Endocrine factors in the etiology of postpartum depression. Compr Psychiatry. 2003;44(3):234–46.
- Skalkidou A, Hellgren C, Comasco E, Sylvén S, Sundström Poromaa I. Biological aspects of postpartum depression. Womens Health Lond Engl. 2012;8(6):659–72.

- 32. Bloch M, Schmidt PJ, Danaceau M, Murphy J, Nieman L, Rubinow DR. Effects of gonadal steroids in women with a history of postpartum depression. Am J Psychiatry. 2000;157(6):924–30.
- 33. Ahokas A, Kaukoranta J, Wahlbeck K, Aito M. Estrogen deficiency in severe postpartum depression: successful treatment with sublingual physiologic 17beta-estradiol: a preliminary study. J Clin Psychiatry. 2001;62(5):332–6.
- 34. Gregoire AJ, Kumar R, Everitt B, Henderson AF, Studd JW. Transdermal oestrogen for treatment of severe postnatal depression. Lancet Lond Engl. 1996;347(9006):930–3.
- 35. Klier CM, Muzik M, Dervic K, Mossaheb N, Benesch T, Ulm B, et al. The role of estrogen and progesterone in depression after birth. J Psychiatr Res. 2007;41(3–4):273–9.
- Harris B, Lovett L, Newcombe RG, Read GF, Walker R, Riad-Fahmy D. Maternity blues and major endocrine changes: Cardiff puerperal mood and hormone study II. BMJ. 1994;308(6934):949–53.
- 37. Nappi RE, Petraglia F, Luisi S, Polatti F, Farina C, Genazzani AR. Serum allopregnanolone in women with postpartum 'blues'. Obstet Gynecol. 2001;97(1):77–80.
- 38. Harris B, Lovett L, Smith J, Read G, Walker R, Newcombe R. Cardiff puerperal mood and hormone study. III. Postnatal depression at 5 to 6 weeks postpartum, and its hormonal correlates across the peripartum period. Br J Psychiatry J Ment Sci. 1996;168(6):739–44.
- 39. Abou-Saleh MT, Ghubash R, Karim L, Krymski M, Bhai I. Hormonal aspects of postpartum depression. Psychoneuroendocrinology. 1998;23(5):465–75.
- 40. Lawrie TA, Hofmeyr GJ, De Jager M, Berk M, Paiker J, Viljoen E. A double-blind randomised placebo controlled trial of postnatal norethisterone enanthate: the effect on postnatal depression and serum hormones. Br J Obstet Gynaecol. 1998;105(10):1082–90.
- 41. Iliadis SI, Comasco E, Sylvén S, Hellgren C, Sundström Poromaa I, Skalkidou A. Prenatal and postpartum evening salivary cortisol levels in association with peripartum depressive symptoms. PLoS One. 2015;10(8):e0135471.
- 42. Kammerer M, Taylor A, Glover V. The HPA axis and perinatal depression: a hypothesis. Arch Womens Ment Health. 2006;9(4):187–96.
- 43. Jolley SN, Elmore S, Barnard KE, Carr DB. Dysregulation of the hypothalamic-pituitary-adrenal axis in postpartum depression. Biol Res Nurs. 2007;8(3):210–22.
- 44. Taylor A, Glover V, Marks M, Kammerer M. Diurnal pattern of cortisol output in postnatal depression. Psychoneuroendocrinology. 2009;34(8):1184–8.
- 45. Apter-Levy Y, Feldman M, Vakart A, Ebstein RP, Feldman R. Impact of maternal depression across the first 6 years of life on the child's mental health, social engagement, and empathy: the moderating role of oxytocin. Am J Psychiatry. 2013;170(10):1161–8.
- 46. Viero C, Shibuya I, Kitamura N, Verkhratsky A, Fujihara H, Katoh A, et al. REVIEW: Oxytocin: crossing the bridge between basic science and pharmacotherapy. CNS Neurosci Ther. 2010;16(5):e138–56.
- 47. Feldman R. Oxytocin and social affiliation in humans. Horm Behav. 2012;61(3):380-91.
- 48. Basraon S, Costantine MM. Mood disorders in pregnant women with thyroid dysfunction. Clin Obstet Gynecol. 2011;54(3):506–14.
- 49. Wesseloo R, et al. Thyroid peroxidase antibodies during early gestation and the subsequent risk of first-onset postpartum depression: a prospective cohort study. J Affect Disord. 2018;225:399–403. [cited 2018 Dec 13]. Available from: https://www.ncbi.nlm.nih.gov/pubmed/?term=thyroid+peroxidase+antibodies+during+early+gestation+and+the+subsequent+risk+of+first-onset+postpartum.
- 50. Corwin EJ, Pajer K. The psychoneuroimmunology of postpartum depression. J Womens Health. 2008;17(9):1529–34.
- 51. Maes M, Yirmyia R, Noraberg J, Brene S, Hibbeln J, Perini G, et al. The inflammatory & neurodegenerative (I&ND) hypothesis of depression: leads for future research and new drug developments in depression. Metab Brain Dis. 2009;24(1):27–53.
- 52. Raison CL, Capuron L, Miller AH. Cytokines sing the blues: inflammation and the pathogenesis of depression. Trends Immunol. 2006;27(1):24–31.

- 53. Osborne LM, Yenokyan G, Fei K, Kraus T, Moran T, Monk C, et al. Innate immune activation and depressive and anxious symptoms across the peripartum: an exploratory study. Psychoneuroendocrinology. 2019;99:80–6.
- 54. De Crescenzo F, Perelli F, Armando M, Vicari S. Selective serotonin reuptake inhibitors (SSRIs) for post-partum depression (PPD): a systematic review of randomized clinical trials. J Affect Disord. 2014;152–154:39–44.
- 55. Anderson G, Maes M. Postpartum depression: psychoneuroimmunological underpinnings and treatment. Neuropsychiatr Dis Treat. 2013;9:277–87.
- Pawlby S, Hay DF, Sharp D, Waters CS, O'Keane V. Antenatal depression predicts depression in adolescent offspring: prospective longitudinal community-based study. J Affect Disord. 2009;113(3):236–43.
- 57. Mehta D, Quast C, Fasching PA, Seifert A, Voigt F, Beckmann MW, et al. The 5-HTTLPR polymorphism modulates the influence on environmental stressors on peripartum depression symptoms. J Affect Disord. 2012;136(3):1192–7.
- Mitchell C, Notterman D, Brooks-Gunn J, Hobcraft J, Garfinkel I, Jaeger K, et al. Role of mother's genes and environment in postpartum depression. Proc Natl Acad Sci U S A. 2011;108(20):8189–93.
- 59. Figueiredo FP, Parada AP, de Araujo LF, Silva WA, Del-Ben CM. The influence of genetic factors on peripartum depression: a systematic review. J Affect Disord. 2015;172:265–73.
- Guintivano J, Arad M, Gould TD, Payne JL, Kaminsky ZA. Antenatal prediction of postpartum depression with blood DNA methylation biomarkers. Mol Psychiatry. 2014;19(5):560–7.
- Mehta D, Newport DJ, Frishman G, Kraus L, Rex-Haffner M, Ritchie JC, et al. Early predictive biomarkers for postpartum depression point to a role for estrogen receptor signaling. Psychol Med. 2014;44(11):2309–22.
- 62. Zhang X, Wang L, Huang F, Li J, Xiong L, Xue H, et al. Gene-environment interaction in postpartum depression: a Chinese clinical study. J Affect Disord. 2014;165:208–12.
- 63. Meltzer-Brody S, Maegbaek ML, Medland SE, Miller WC, Sullivan P, Munk-Olsen T. Obstetrical, pregnancy and socio-economic predictors for new-onset severe postpartum psychiatric disorders in primiparous women. Psychol Med. 2017;47(8):1427–41.
- 64. Olieman RM, Siemonsma F, Bartens MA, Garthus-Niegel S, Scheele F, Honig A. The effect of an elective cesarean section on maternal request on peripartum anxiety and depression in women with childbirth fear: a systematic review. BMC Pregnancy Childbirth. 2017;17(1):195.
- 65. Rauh C, Beetz A, Burger P, Engel A, Häberle L, Fasching PA, et al. Delivery mode and the course of pre- and postpartum depression. Arch Gynecol Obstet. 2012;286(6):1407–12.
- Hildingsson I, Nilsson C, Karlström A, Lundgren I. A longitudinal survey of childbirthrelated fear and associated factors. J Obstet Gynecol Neonatal Nurs. 2011;40(5):532–43.
- Patel RR, Murphy DJ, Peters TJ. Operative delivery and postnatal depression: a cohort study. BMJ. 2005;330(7496):879.
- 68. Goker A, Yanikkerem E, Demet MM, Dikayak S, Yildirim Y, Koyuncu FM. Postpartum depression: is mode of delivery a risk factor? ISRN Obstet Gynecol. 2012;2012:616759.
- 69. Law LW, Pang MW, Chung TK-H, Lao TT-H, Lee DT-S, Leung TY, et al. Randomised trial of assigned mode of delivery after a previous cesarean section—impact on maternal psychological dynamics. J Matern-Fetal Neonatal Med. 2010;23(10):1106–13.
- 70. Silverman ME, Reichenberg A, Savitz DA, Cnattingius S, Lichtenstein P, Hultman CM, et al. The risk factors for postpartum depression: a population-based study. Depress Anxiety. 2017;34(2):178–87.
- 71. Park H, Sundaram R, Gilman SE, Bell G, Louis GMB, Yeung EH. Timing of maternal depression and sex-specific child growth, the upstate KIDS study. Obesity (Silver Spring). 2018;26(1):160–6.
- Suri R, Stowe ZN, Cohen LS, Newport DJ, Burt VK, Aquino-Elias AR, et al. Prospective longitudinal study of predictors of postpartum-onset depression in women with a history of major depressive disorder. J Clin Psychiatry. 2017;78(8):1110–6.
- 73. Mandelli L, Souery D, Bartova L, Kasper S, Montgomery S, Zohar J, et al. Bipolar II disorder as a risk factor for postpartum depression. J Affect Disord. 2016;204:54–8.

- Meltzer-Brody S, Larsen JT, Petersen L, Guintivano J, Florio AD, Miller WC, et al. Adverse life events increase risk for postpartum psychiatric episodes: a population-based epidemiologic study. Depress Anxiety. 2018;35(2):160–7.
- Viktorin A, Meltzer-Brody S, Kuja-Halkola R, Sullivan PF, Landén M, Lichtenstein P, et al. Heritability of perinatal depression and genetic overlap with nonperinatal depression. Am J Psychiatry. 2016;173(2):158–65.
- Fisher SD, Wisner KL, Clark CT, Sit DK, Luther JF, Wisniewski S. Factors associated with onset timing, symptoms, and severity of depression identified in the postpartum period. J Affect Disord. 2016;203:111–20.
- Lee AM, Lam SK, Sze Mun Lau SM, Chong CSY, Chui HW, Fong DYT. Prevalence, course, and risk factors for antenatal anxiety and depression. Obstet Gynecol. 2007;110(5):1102–12.
- Leigh B, Milgrom J. Risk factors for antenatal depression, postnatal depression and parenting stress. BMC Psychiatry. 2008;8:24.
- Räisänen S, Lehto SM, Nielsen HS, Gissler M, Kramer MR, Heinonen S. Risk factors for and perinatal outcomes of major depression during pregnancy: a population-based analysis during 2002–2010 in Finland. BMJ Open. 2014;4(11):e004883.
- 80. Langan R, Goodbred AJ. Identification and management of peripartum depression. Am Fam Physician. 2016;93(10):852–8.
- 81. Mehta S, Mehta N. An overview of risk factors associated to post-partum depression in Asia. Ment Illn. 2014;6(1):5370.
- 82. Sharkey KM, Iko IN, Machan JT, Thompson-Westra J, Pearlstein TB. Infant sleep and feeding patterns are associated with maternal sleep, stress, and depressed mood in women with a history of major depressive disorder (MDD). Arch Womens Ment Health. 2016;19(2):209–18.
- 83. Doan T, Gay CL, Kennedy HP, Newman J, Lee KA. Nighttime breastfeeding behavior is associated with more nocturnal sleep among first-time mothers at one month postpartum. J Clin Sleep Med. 2014;10(3):313–9.
- 84. Dennis C-L, Ross L. Relationships among infant sleep patterns, maternal fatigue, and development of depressive symptomatology. Birth (Berkeley, CA). 2005;32(3):187–93.
- 85. Zeng Y, Li Y, Xia H, Wang S, Zhou J, Chen D. Retinoids, anxiety and peripartum depressive symptoms among Chinese women: a prospective cohort study. BMC Psychiatry. 2017;17(1):278.
- 86. Field T. Postpartum depression effects on early interactions, parenting, and safety practices: a review. Infant Behav Dev. 2010;33(1):1–6.
- 87. Tronick E, Reck C. Infants of depressed mothers. Harv Rev Psychiatry. 2009;17(2):147–56.
- Dean DC, Planalp EM, Wooten W, Kecskemeti SR, Adluru N, Schmidt CK, et al. Association of prenatal maternal depression and anxiety symptoms with infant white matter microstructure. JAMA Pediatr. 2018;172(10):973–81.
- 89. Hoffman C, Dunn DM, Njoroge WFM. Impact of postpartum mental illness upon infant development. Curr Psychiatry Rep. 2017;19(12):100.
- Hughes C, Roman G, Hart MJ, Ensor R. Does maternal depression predict young children's executive function?—a 4-year longitudinal study. J Child Psychol Psychiatry. 2013;54(2):169–77.
- Barker ED, Jaffee SR, Uher R, Maughan B. The contribution of prenatal and postnatal maternal anxiety and depression to child maladjustment. Depress Anxiety. 2011;28(8):696–702.
- 92. Feldman R, Eidelman AI. Biological and environmental initial conditions shape the trajectories of cognitive and social-emotional development across the first years of life. Dev Sci. 2009;12(1):194–200.
- Cox AD, Puckering C, Pound A, Mills M. The impact of maternal depression in young children. J Child Psychol Psychiatry. 1987;28(6):917–28.
- 94. Hay DF, Pawlby S, Sharp D, Asten P, Mills A, Kumar R. Intellectual problems shown by 11-year-old children whose mothers had postnatal depression. J Child Psychol Psychiatry. 2001;42(7):871–89.
- 95. Rueda MR, Posner MI, Rothbart MK. The development of executive attention: contributions to the emergence of self-regulation. Dev Neuropsychol. 2005;28(2):573–94.

- 96. Farah MJ, Shera DM, Savage JH, Betancourt L, Giannetta JM, Brodsky NL, et al. Childhood poverty: specific associations with neurocognitive development. Brain Res. 2006;1110(1):166–74.
- 97. Duncan GJ, Brooks-Gunn J. Family poverty, welfare reform, and child development. Child Dev. 2000;71(1):188–96.
- 98. Noble KG, McCandliss BD, Farah MJ. Socioeconomic gradients predict individual differences in neurocognitive abilities. Dev Sci. 2007;10(4):464–80.
- Conger RD, Donnellan MB. An interactionist perspective on the socioeconomic context of human development. Annu Rev Psychol. 2007;58:175–99.
- 100. Garber J, Cole DA. Intergenerational transmission of depression: a launch and grow model of change across adolescence. Dev Psychopathol. 2010;22(4):819–30.
- Hammen C, Shih JH, Brennan PA. Intergenerational transmission of depression: test of an interpersonal stress model in a community sample. J Consult Clin Psychol. 2004;72(3):511–22.
- 102. Barker ED. The duration and timing of maternal depression as a moderator of the relationship between dependent interpersonal stress, contextual risk and early child dysregulation. Psychol Med. 2013;43(8):1587–96.
- 103. Murray L, Kempton C, Woolgar M, Hooper R. Depressed mothers' speech to their infants and its relation to infant gender and cognitive development. J Child Psychol Psychiatry. 1993;34(7):1083–101.
- 104. Hall PL, Wittkowski A. An exploration of negative thoughts as a normal phenomenon after childbirth. J Midwifery Womens Health. 2006;51(5):321–30.
- Petch J, Halford WK. Psycho-education to enhance couples' transition to parenthood. Clin Psychol Rev. 2008;28(7):1125–37.
- 106. Thompson RA. Early sociopersonality development. In: Handbook of child psychology: social, emotional, and personality development, vol. 3. 5th ed. Hoboken, NJ: Wiley; 1998. p. 25–104.
- 107. Grace SL, Evindar A, Stewart DE. The effect of postpartum depression on child cognitive development and behavior: a review and critical analysis of the literature. Arch Womens Ment Health. 2003;6(4):263–74.
- 108. Hay DF, Pawlby S, Angold A, Harold GT, Sharp D. Pathways to violence in the children of mothers who were depressed postpartum. Dev Psychol. 2003;39(6):1083–94.
- 109. Murray L, Cooper P. Effects of postnatal depression on infant development. Arch Dis Child. 1997;77(2):99–101.
- 110. Poobalan AS, Aucott LS, Ross L, Smith WCS, Helms PJ, Williams JHG. Effects of treating postnatal depression on mother-infant interaction and child development: systematic review. Br J Psychiatry J Ment Sci. 2007;191:378–86.
- Appleby L, Warner R, Whitton A, Faragher B. A controlled study of fluoxetine and cognitivebehavioural counselling in the treatment of postnatal depression. BMJ. 1997;314(7085):932–6.
- 112. Stowe ZN, Casarella J, Landry J, Nemeroff CB. Sertraline in the treatment of women with postpartum major depression. Depression. 1995;3(1–2):49–55.
- 113. Epperson CN, Anderson GM, McDougle CJ. Sertraline and breast-feeding. N Engl J Med. 1997;336(16):1189–90.
- Molyneaux E, Trevillion K, Howard LM. Antidepressant treatment for postnatal depression. JAMA. 2015;313(19):1965–6.
- 115. Molyneaux E, Telesia LA, Henshaw C, Boath E, Bradley E, Howard LM. Antidepressants for preventing postnatal depression. Cochrane Database Syst Rev. 2018;(4):CD004363.
- Stuart-Parrigon K, Stuart S. Perinatal depression: an update and overview. Curr Psychiatry Rep. 2014;16(9):468.
- 117. O'Connor E, Rossom RC, Henninger M, Groom HC, Burda BU. Primary care screening for and treatment of depression in pregnant and postpartum women: evidence report and systematic review for the US Preventive Services Task Force. JAMA. 2016;315(4):388–406.
- 118. García-Esteve LL, Miyar V. Manual de Psiquiatría perinatal. Guía para el manejo de los trastornos mentales durante el embarazo, posparto y lactancia. Madrid: Médica Panamerican; 2016.

- Coughlin CG, Blackwell KA, Bartley C, Hay M, Yonkers KA, Bloch MH. Obstetric and neonatal outcomes after antipsychotic medication exposure in pregnancy. Obstet Gynecol. 2015;125(5):1224–35.
- Chisolm MS, Payne JL. Management of psychotropic drugs during pregnancy. BMJ. 2016;532:h5918.
- 121. Sujan AC, Rickert ME, Öberg AS, Quinn PD, Hernández-Díaz S, Almqvist C, et al. Associations of maternal antidepressant use during the first trimester of pregnancy with preterm birth, small for gestational age, autism spectrum disorder, and attention-deficit/hyperactivity disorder in offspring. JAMA. 2017;317(15):1553–62.
- 122. Nordeng H, Spigset O. Treatment with selective serotonin reuptake inhibitors in the third trimester of pregnancy: effects on the infant. Drug Saf. 2005;28(7):565–81.
- 123. Chambers CD, Hernandez-Diaz S, Van Marter LJ, Werler MM, Louik C, Jones KL, et al. Selective serotonin-reuptake inhibitors and risk of persistent pulmonary hypertension of the newborn. N Engl J Med. 2006;354(6):579–87.
- Brown HK, Ray JG, Wilton AS, Lunsky Y, Gomes T, Vigod SN. Association between serotonergic antidepressant use during pregnancy and autism spectrum disorder in children. JAMA. 2017;317(15):1544–52.
- 125. Healy D, Le Noury J, Mangin D. Links between serotonin reuptake inhibition during pregnancy and neurodevelopmental delay/spectrum disorders: a systematic review of epidemiological and physiological evidence. Int J Risk Saf Med. 2016;28(3):125–41.
- 126. Enato E, Moretti M, Koren G. The fetal safety of benzodiazepines: an updated meta-analysis. J Obstet Gynaecol Can. 2011;33(1):46–8.
- 127. Mateo MJZ, Albéniz JM, Yañez LP. uso de psicofarmacos durante el embarazo y la lactancia. 2nd ed. Vitoria-Gasteiz (Álava): Osakidetza; 2016.
- 128. Gentile S. Drug treatment for mood disorders in pregnancy. Curr Opin Psychiatry. 2011;24(1):34–40.
- McKnight RF, Adida M, Budge K, Stockton S, Goodwin GM, Geddes JR. Lithium toxicity profile: a systematic review and meta-analysis. Lancet Lond Engl. 2012;379(9817):721–8.
- 130. Mawer G, Briggs M, Baker GA, Bromley R, Coyle H, Eatock J, et al. Pregnancy with epilepsy: obstetric and neonatal outcome of a controlled study. Seizure. 2010;19(2):112–9.
- 131. Holmes LB, Mittendorf R, Shen A, Smith CR, Hernandez-Diaz S. Fetal effects of anticonvulsant polytherapies: different risks from different drug combinations. Arch Neurol. 2011;68(10):1275–81.
- 132. Elkjær LS, Bech BH, Sun Y, Laursen TM, Christensen J. Association between prenatal valproate exposure and performance on standardized language and mathematics tests in schoolaged children. JAMA Neurol. 2018;75(6):663–71.
- 133. Tomson T, Battino D, Bonizzoni E, Craig J, Lindhout D, Perucca E, et al. Comparative risk of major congenital malformations with eight different antiepileptic drugs: a prospective cohort study of the EURAP registry. Lancet Neurol. 2018;17(6):530–8.
- 134. Kälviäinen R, Straus S, Dogne J-M, Bakchine S, Haas M. Reducing valproate use in women with epilepsy. Lancet Neurol. 2018;17(7):580–1.
- 135. Wieck A, Jones S. Dangers of valproate in pregnancy. BMJ. 2018;361:k1609.
- Angus-Leppan H, Liu RSN. Weighing the risks of valproate in women who could become pregnant. BMJ. 2018;361:k1596.
- 137. FDA, U. S. FDA. U. S. FDA Drug Safety Communication: valproate anti-seizure products contraindicated for migraine prevention in pregnant women due to decreased IQ scores in exposed children. FDA website; 2018.
- 138. European Medicines Agency. PRAC recommends new measures to avoid valproate exposure in pregnancy [Internet]. 2018. Available from: http://www.ema.europa.eu/ema/index.jsp?curl=pages/news\_and\_events/news/2018/02/news\_detail\_002903.jsp&mid=WC0b01ac 058004d5c1.
- 139. National Collaborating Centre for Mental Health. Antenatal and postnatal mental health: the NICE guideline on clinical management and service guidance. Leicester: British Psychological Society; 2007.

- 140. Dolk H, Jentink J, Loane M, Morris J, de Jong-van den Berg LTW, EUROCAT Antiepileptic Drug Working Group. Does lamotrigine use in pregnancy increase orofacial cleft risk relative to other malformations? Neurology. 2008;71(10):714–22.
- 141. Huybrechts KF, Hernández-Díaz S, Patorno E, Desai RJ, Mogun H, Dejene SZ, et al. Antipsychotic use in pregnancy and the risk for congenital malformations. JAMA Psychiat. 2016;73(9):938–46.
- 142. Food and Drug Administration, et al. FDA Drug Safety Communication: antipsychotic drug labels updated on use during pregnancy and risk of abnormal muscle movements and withdrawal symptoms in newborns [Internet]. 2011. Available from: http://www.fda.gov/Drugs/DrugSafety/ucm243903.
- 143. Mehta TM, Van Lieshout RJ. A review of the safety of clozapine during pregnancy and lactation. Arch Womens Ment Health. 2017;20(1):1–9.
- 144. Gentile S. Antipsychotic therapy during early and late pregnancy. A systematic review. Schizophr Bull. 2010;36(3):518–44.
- 145. Breastfeeding and the use of human milk. American Academy of Pediatrics. Pediatrics [Internet] [cited 2018 Oct 14]. Available from: http://pediatrics.aappublications.org/content/100/6/1035.
- 146. Rasmussen K. The practice of electroconvulsive therapy: recommendations for treatment, training, and privileging (second edition). J ECT. 2002;18(1):58–9.
- 147. The Millennium Development Goals Report 2013 [Internet] [cited 2018 Oct 14]. Available from: https://www.un.org/millenniumgoals/pdf/report-2013/mdg-report-2013-english.pdf.
- 148. The International Marce Society for Perinatal Mental Health [Internet] [cited 2018 Oct 14]. Available from: https://marcesociety.com/.
- 149. Kumar R, Robson KM. A prospective study of emotional disorders in childbearing women. Br J Psychiatry J Ment Sci. 1984;144:35–47.
- 150. Warner R, Appleby L, Whitton A, Faragher B. Demographic and obstetric risk factors for postnatal psychiatric morbidity. Br J Psychiatry J Ment Sci. 1996;168(5):607–11.
- 151. Nott PN. Extent, timing and persistence of emotional disorders following childbirth. Br J Psychiatry J Ment Sci. 1987;151:523–7.
- 152. Philipps LH, O'Hara MW. Prospective study of postpartum depression: 4 1/2-year follow-up of women and children. J Abnorm Psychol. 1991;100(2):151–5.



## **Puerperal Psychosis**

24

Jaime del Corral Serrano

#### **Abstract**

The period of time after childbirth is, by far, the time of life of the woman in which the incidence of psychosis is the highest. Numerous cultural, psychological, and biological stressors converge around motherhood. Clinical aspects of the various forms of puerperal psychosis, and a specific and well-defined clinical picture (the "classical puerperal psychosis" described in the ancient texts), are addressed. The emergence of this disease has important prognostic implications, and because of its characteristics, it is difficult to determine the overall risk rate. The absence of standardized classification criteria for puerperal psychosis has meant that, in many studies, they have been considered almost exclusively as part of the major psychiatric syndromes, such as bipolar disorder. At present, it seems to prevail a biological paradigm in explaining these disorders, although numerous scientific data support the idea that should be considered from a complex and dimensional perspective.

#### 24.1 Introduction

Postpartum psychosis is defined as psychosis commencing within 3 months after delivery. The condition can lead to *serious* complications for both *mother* and *baby*. As discussed below, consideration of postpartum psychosis as a separate "entity" has been debated since the interest on the disease re-emerged in the nineteenth century.

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In recent years, research has been conducted to support the existence of a specific type of psychosis associated with the postpartum period [1–3], and there have also been other studies that argue that belongs to other forms of psychosis [4–6].

Postpartum psychosis can be defined as any form of psychosis that happen after childbirth or, as a modality, characteristic of the postpartum period and with specific psychopathology. Many classical texts provide descriptions of puerperal psychosis with a number of characteristic symptoms, which have been reproduced in the current studies on the disease. In order to bring clarity to the exposition, hereafter we will refer to puerperal (or postpartum) psychosis as any form of psychosis after the birth, and we will use "classical psychosis" to refer to the specific mode of psychosis after delivery.

Postpartum psychosis is caused as a result of the confluence of a number of stressors. These factors include strong biological and psychosocial influences.

This chapter aims to outline some of the possible causes of puerperal psychosis (and thus, the causes of psychosis in general). Psychopathology, epidemiology, and evolutionary aspects of the disorder will also be addressed. In addition, we will try, in a summarized form, to explore the conceptual dialectic about the disorder.

### 24.2 Conceptual History

The first references to syndromic charts related to postpartum psychosis can be found in ancient literature. Hippocrates described an entity called *phrenitis*, associated with the postpartum period, as a disturbance of thought, mood, and action, accompanied by physical changes such as fever (and equivalent to delirium) and separated from the conventional madness (*mania*) in which fever is absent [7]. Soranus of Ephesus also described a febrile clinical picture accompanied by acute mental illness [8]. The absence of fever is probably the first criterion to distinguish (separate) febrile delirium from psychosis. Many of the earliest descriptions of puerperal psychosis described the clinical symptoms of delirium, with (especially infectious) probable physical cause. But there are also writings of confusional psychosis episodes with no fever, approaching the concept, which will be built in the future, of puerperal psychosis. The doctrines of Hippocrates remained in place from the fourth century BC until the nineteenth century.

In the nineteenth century, two main lines of thought on puerperal psychosis that will extend to the present are configured. Although there exist some previous references [9], the first accurate descriptions of the disorder appear in the work of Esquirol [10], who observed a high incidence of psychosis in the immediate post-partum and in the breastfeeding period. The most famous pupil of Esquirol, Marce, concluded that, in fact, the post-birth period increased the incidence of various forms of psychosis and described a specific puerperal syndrome characterized by the diversity of psychotic symptoms and confusion.

Conversely, other authors consider that the low specificity of symptoms suggests that puerperal psychosis does not meet criteria to be considered a nosological category and that the clinical picture "reveals" a preexisting psychiatric care. This vision, inserted in the line of "mental degeneration" of Morel, will be defended by

Magnan (1877) and Toulouse (1893), among others [11]. In the twentieth century, both lines of thought are maintained. The first, Anglo-Saxon and inspired by Kraepelin, believes that postpartum pathology existed previously, and it is triggered by stress factors that appear in this period. The second, supported by French authors (as Henry Ey), but also by the Anglo-Saxons (Kendell and Hamilton), believes that there is a postpartum psychotic pathology. Hamilton is probably the best defender of the existence of postpartum psychosis as a disease entity in which the perplexity and symptomatic variability are the core aspects [1].

In many European countries, it was recognized for years the existence of a postpartum syndrome. It was thought to be psychogenic or reactive and that occurred in women with dysfunctional personality traits. The term "amentia" (considered practically synonymous with puerperal psychosis) refers to confusion and/or perplexity and comes from the German literature. For decades, the "classic" puerperal psychosis has been considered as one of the types of Bonhoeffer [12] acute exogenous reaction.

Throughout the twentieth century, a neo-Kraepelinian classification scheme, under which there are two basic disease entities in psychosis, manic-depressive psychosis and schizophrenia, is imposed. Moreover, the "classic" puerperal psychosis appears with much less incidence than other forms of psychosis that are also favored by stress factors and physical alterations. Thus, many studies on puerperal psychosis [13, 14] conclude that it does not exist as such and that puerperal psychosis are most classifiable as affective disorders [14]. Another feature that has been attributed to puerperal psychosis, which explains its absence in modern classifications, is the absence of specific symptoms. This fact, coupled with the presence of symptoms that overlap with other diagnostic categories, makes it difficult to individualize. As discussed below, some recent studies suggest the existence of a number of typical symptoms, which coincide with the observations made in the nineteenth century.

ICD-10 employs the category of mental and behavioral disorders associated with the puerperium (F53), but warns that:

The inclusion of this category should not be taken to imply that, given adequate information, a significant proportion of cases of postpartum mental illness cannot be classified in other categories. Most experts in this field are of the opinion that a clinical picture of puerperal psychosis is so rarely (if ever) reliably distinguishable from affective disorder or schizophrenia that a special category is not justified.

In the DSM-IV, the specification of postpartum onset (within 4 weeks) was included. It can be applied to manic or depressive episode, within a major depressive disorder, bipolar I disorder, bipolar II disorder, or brief psychotic disorder. Therefore, the international classifications do not record a specific set of symptoms for postpartum psychosis, but allow the use of the term [15, 16].

McGorry and Connell, two Australian authors, have reviewed the scientific literature on puerperal psychosis. According to their research, studies clearly show vulnerability to puerperal episodes and indicate a higher risk for affective and cycloid psychoses [17]. References to cycloid psychosis are common in work on puerperal psychosis, because there are many symptoms that overlap between the two diseases.

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A current Dutch author we quote in this paper repeatedly, Klompenhouwer, defends the existence of "classic psychosis" as an entity [18]. He defines the disease as a confusional psychosis that develops in healthy women in a period of 2 weeks after delivery. The author makes a detailed study of puerperal psychosis based on the Research Diagnostic Criteria (RDC). The study concludes that there is a characteristic syndrome. Later, we will make a description of the symptoms and the evolution of this classic "psychosis," based primarily on the work of Klompenhouwer, Hamilton, Ey, and Esquirol.

In summary, during the nineteenth century, numerous writings about psychotic syndromes associated with the postpartum period reappeared. Some of them describe a picture of confusional characteristics and mood fluctuations that was categorized as a specific disease, while others tend to view puerperal psychosis as manifestations of great psychiatric syndromes. The imposition of a consensual truth from classification models DSM and ICD have imposed the second option to the detriment of the first. At present, some authors provide evidence for the existence of a definite form of puerperal psychosis. It remains to establish whether this set of symptoms should be considered a disease in itself or as a variant of other puerperal disorders.

#### 24.3 Symptomatology

Postpartum conditions of physical and psychological stress cause an increase in all forms of psychosis, and all the groups of symptoms associated with them. Studies of psychotic episodes associated with postpartum agree that there is a predominance of affective symptomatology. In many cases, it is stated that most of the episodes are classifiable in bipolar spectrum [5, 19], and in other studies, they are labeled as functional psychosis or schizoaffective disorders [17]. In these cases, typical symptoms occur, often nuanced by the circumstances surrounding motherhood.

Other articles posit the theory of a specific disorder (the "classical" puerperal psychosis). The characteristic symptoms of this "classical" psychosis are [20–22]:

- 1. Fast onset, usually from 2 to 10 days after birth, with a decreasing incidence over time. The onset occurs with no previous symptoms. Frequently, it begins with confusional symptoms and rapidly evolves into the complete syndrome.
- 2. A fluctuating confusional state with variable intensity, in which the level of consciousness ranges from simple obnubilation to a state of severe stupor. Henry Ey described it as "a confused-oniric state with a tone of anxiety" [10]. Most papers agree on the high incidence of this symptom in relation to its presence in other forms of psychosis (manic-depressive psychosis or schizophrenic psychosis). Confusion and perplexity often vary. After remission of the episode, amnesia for periods of confusion is a common fact.
- 3. Depersonalization and derealization. These are less specific symptom of the disorder and are present in most puerperal psychiatric disorders, both psychotic

- and nonpsychotic. These states of anxiety often induce a poor mother-child bond that generates intense feelings of guilt in the mother.
- 4. Dreamlike states of variable depth, independent of the degree of confusion. Thus, very rich dream experiences can appear with little disorientation, and vice versa. The great complexity and polymorphism of these states is characteristic of puerperal psychosis.
- 5. Affective disturbances with melancholic, mixed, or manic forms often emerge after the dream phase. They constitute one of the most characteristic symptoms of the disorder, and the alternating mood is particularly frequent. The mood swings establish links with bipolar and cycloid psychosis.
- 6. Misrecognitions. Characteristically the parent or husband is involved. They constitute one of the major symptoms of the disorder.
- 7. Hallucinations. The auditory and visual hallucinations are common in the "classical" puerperal psychosis, but also in schizophrenic and schizoaffective psicosis, and very rare in purely affective psychosis. Verbal and nonverbal hallucinations (crying, screaming) are included. The presence of hallucinations is one of the main clues to differentiate the "classical" puerperal psychosis from bipolar psychosis.
- 8. Delusions. The delusional contents related to motherhood, although not uncommon, appear more in other forms of psychosis. The presence of thematic delusions has been interpreted as an argument in favor of psychogenic etiology in these patients. However, modern studies do not show a clear predominance of this delusional theme. It has been noted that persecutory and erotomanic delusions are also characteristic. A pathognomonic pattern of delirium has not been found.
- 9. Psychomotor symptoms. Agitation and retardation are the most common features. Stupor is less frequent.
- 10. Changeability of symptoms in the course of the illness, called the "kaleido-scopic picture" by Klompenhouwer. This alternation of altered level of consciousness, psychotic symptoms, and mood swings is one of the defining characteristics of "classical" puerperal psychosis.
- 11. Remissions and relapses. Often, after several days of symptoms, an apparent complete remission and, a few days later, a new outbreak occur. These recurrences should be considered carefully, as the symptom-free periods can lead to a premature meeting between mother and child that may involve a significant risk for both.
- 12. Symptoms are infrequent after the third week.

In a study of recurrences in patients who met the criteria for "classical" puerperal psychosis, 95% had symptoms in the first 3 weeks. Ninety-five percent also presented confusional symptomatology. Other symptoms such as changes in the presented symptoms (kaleidoscopic image) (70%), depersonalization (70%), and, to a lesser degree, assault (60%) were also observed [2, 17].

There are specific symptoms of "classic" puerperal psychosis and nonspecific symptoms. Certain properties considered by ancient authors as characteristic of this

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disease, such as thematic delusions or mood changes, occur in other psychotic disorders. However, there do exist some characteristics which can be conceptualized as indicators of "classic" psychosis. They are:

- Confusional symptoms
- Depersonalization
- Misrecognitions
- The "kaleidoscopic course"

It is worth mentioning another variety of psychosis that appears related to postpartum psychosis, psychosis associated with menstruation. The menstrual cycle, especially the fourth quarter, in which a dramatic reduction in the levels of sex hormones occurs, in an attenuated form mimics the hormonal milieu that occurs in postpartum. As in puerperal psychosis, we found descriptions referring to it from the nineteenth century [23]. Over two centuries there have been observations on cases of psychosis with a cyclic evolution depending on the phase of the menstrual cycle. Although there are celebrated works about this subject (see Krafft-Ebing) [24], menstrual psychosis has not attained the status of clinical entity. In a recent article, Brockington [25] reviews the literature on the subject and proposes a new classification, adapted to the work of Krafft-Ebing and Jolly [26]. These psychoses are considered as presentations of bipolar disorder. He describes a picture characterized by:

- Acute onset, in a context of normality and no previous psychiatric history
- Short duration, with a full recovery
- Psychotic symptoms: confusion, stupor, mutism, delusions, hallucinations, or mania
- Cyclic course, with a monthly rate, that coincides with the menstrual cycle

It is important to specify that researches that support the existence of a specific form of puerperal psychosis do not find an association with menstrual psychosis [2]. This points to the theory that menstrual psychosis is probably related to the syndromes of the bipolar spectrum and that it only shares with "classic" puerperal psychosis the symptoms that we have described as nonspecific.

It has also been described, in both classic texts and contemporary studies, postabortion or after hydatidiform mole psychosis [27] (in a patient with previous puerperal psychosis).

# 24.4 Epidemiology

Postpartum psychosis is not highly prevalent. The incidence is approximately 1–2 cases per 1000 births [19, 28], and the global prevalence is around 0.5% [29]. The period after childbirth is the phase of a woman's life in which there is the greatest probability of psychosis. During the postpartum period, there is a risk of psychosis

income 22 times higher than in the 2 years prior to delivery. It should be noted that we refer to many different forms of psychosis and from all spectra (schizophrenic psychosis, bipolar mania, cycloid psychosis, etc.). Therefore, there must be numerous precipitating (and numerous forms of illness) to explain this dramatic increase in the number of cases.

Psychosis is a serious condition that can compromise the safety of the mother and baby and seriously affect the subsequent mother-child relationship. It must be considered of great importance to know and properly treat severe postpartum psychiatric disorders. In a study conducted in the UK, suicide was the leading cause of maternal death. Suicide accounted for 28% of maternal deaths, over any other medical cause [30]. Over 50% of women with puerperal psychosis have delusions that their baby is being harmed or killed, and approximately 4% commit infanticide [31]. Although infanticide is rare, it is a serious consequence (that often results in the mother's suicide [32]) to be prevented by close monitoring. In addition, obstetric and perinatal complications are more common in children of mothers suffering from psychosis, probably due to a poorer self-care by these patients. There is a significant tendency to stigmatize women diagnosed with psychosis and a tendency to consider that are not able to conduct a proper care of the baby. However, a recent study suggests that, in children of mothers with psychosis, physical health indicators are not different from matched baby controls [33]. The risk factors most closely associated with puerperal psychosis are the presence of obstetric complications and primiparity [5, 34].

Concerning the legal status of puerperal psychosis, there are countries like Canada, Great Britain, Australia, and Italy recognizing the postpartum mental illness as a mitigating factor in cases of infanticide. In the United States, it is not accepted as a mitigating criminal cause. Britain has had the Infanticide Act since 1922, which considers that, if a mother commits infanticide in the first months after birth, the crime is considered less serious than homicide.

The risk of recurrence of puerperal psychosis is around 20%, and up to 50% if the depressive episodes are included [35]. Moreover, it is also important to note the importance of both maternal and paternal mental health before birth because, in many cases, childbirth unleashes a psychosis that is the crystallization of a preexisting mental illness or a new episode of disease. Some studies indicate that the degree of parental well-being before birth affects more than the postnatal health the adequate care of the neonate [36]. With a correct treatment, the episodes usually heal within a few weeks. Mild to moderate cases can be treated without hospitalization and continuous monitoring of the patient.

# 24.5 Etiology and Pathogenesis

The postpartum period is a time when there is an exceptionally high risk of recurrence of mental imbalance. There is a high frequency of anxiety disorders, depression, mania, and other psychoses, especially in women with bipolar disorder [37].

Two complementary hypotheses about the etiology of postpartum psychosis are considered. On the one hand, an abrupt life change occurs, and, on the new mother,

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many requirements and environmental stressors converge. On the other hand, many physical changes that affect brain function happen, causing increased vulnerability for the development of mental illness.

The time period surrounding the birth probably involves major changes in the life of a woman. The new mother faces many stressors [38]. In a short time, she must manage the physical effects of childbirth (anemia, fatigue, pain), sleep deprivation, bodily changes, the care of the newborn and other children, loss of libido and possible couple problems, economic and labor conditions, isolation at home, breastfeeding, etc. [39]. In addition to the summation of these factors, motherhood itself is a social requirement and a moral imperative, the great sign of feminine identity [40] and a challenge in which she cannot fail. However, the various psychosocial stressors associated with childbirth seem to have more influence on the occurrence of postpartum depression than in psychosis. In classical medicine, the health of women was considered by its reproductive activity. It is noteworthy that puerperal psychosis is more common in the first Barth. Since hormonal changes should be similar in all births, and life changes are most pronounced after the first, it is conceivable an important contribution of psychogenic etiology.

There are a variety of biological alterations after childbirth. Many of these changes have been associated with the occurrence of psychotic symptoms in both postpartum and other life stages.

Some studies show evidence indicating a genetic component. It has been described a family association of puerperal psychosis in bipolar women [41]. Molecular studies provide evidence of alterations in chromosome 16 [42]. No neurotropic pathogens are involved in postpartum psychosis [43].

Regarding biological hypotheses contemplated on puerperal psychosis, the most commonly known and accepted is referring to the role of regulation of sex hormones. The sharp decrease in the concentrations of sex steroids after delivery is undoubtedly one of the most unique and relevant biological factors in the postpartum and one of its distinctive features. A widely accepted explanation is that the sudden drop in estrogen levels alters dopaminergic function, and this alteration facilitates the emergence of psychotic (and affective) symptoms that occur in the postpartum [44, 45]. Treatments with estrogen supplements have been tried, with varying results, but generally favorable [46, 47].

In recent decades, other biological changes related to the onset of psychosis have been described. Among all, we will list the following:

- 1. Women with *postpartum* psychosis are at higher risk not only of autoimmune thyroid dysfunction but also of clinical thyroid failure. Some authors consider thyroid dysfunction as a potentially strong etiological factor [48].
- 2. Changes in immune response, manifested as a lack of T-cell activation and over-activation of the monocyte/macrophage arm of the immune system [49]. During pregnancy, the immunity is modified in order to avoid an immune response against the fetus and to transmit the immunoglobulins neonate. These changes could lead to autoimmune responses against hormone or neurotransmitters receptors (e.g., NMDA [50]) and favor the development of psychosis.

- Decrease of brain activity in prefrontal areas and changes in the cingulated cortex [51].
- 4. Alteration of other hormonal axes. Increases in the levels of cortisol were observed [52], and parathyroid hormone has been related to psychoses (with improvement correcting calcium levels) [53].
- 5. Psychosis as a symptom of paraneoplastic encephalitis [54] or autoimmune encephalitis [55].
- 6. Decreased levels of indolamines and alterations in tryptophan metabolism [56].
- 7. Sleep disturbance [57].

The confluence of these biological and psychosocial factors determines the onset of a wide range of disorders of varying severity [58, 59] whose incidence increases after delivery [58]. There have been cases of puerperal psychosis in males, but they are rare and with unspecific characteristics. These male psychosis probably respond to stressors, as there is no evidence of hormonal change in men after the birth of a child [60]. Overall, unlike other postpartum disorders, puerperal psicosis seem to be more influenced by biological than by psychosocial factors. This may be because most cases respond to bipolar disorder and schizophrenia, whereas other forms of psychosis ("classic" and others), with greater psychological component, are much less frequent.

### 24.6 Treatment and Prognosis

Prognostic and therapeutic elements help to define the essential aspects of a disease. If puerperal psychosis were a single-cause disease, it would be expected a high recurrence rate after subsequent pregnancies and a low incidence of episodes of non-puerperal mental illness. That is not the case. Patients with puerperal psychosis have a high rate of previous psychiatric illness (25%) and of disease in relatives [61, 62]. It also seems to exist a close association between the presence of a first contact with psychiatry in postpartum and the subsequent diagnosis of bipolar disorder [63]. In the study of Klompenhouwer, where he conducted extensive monitoring of patients with associated symptoms of classical puerperal psychosis, up to 40% required subsequent hospitalization and half of them because of mood disorders. The total number of patients requiring treatment for any cause rose to 57% and 60% of them was treated for an affective disorder. Therefore, there is a close association between classical puerperal psychosis and affective disorders. This association can be interpreted within the context of a lifetime vulnerability to affective disorders, with childbirth as the precipitating factor. In this study no prognostic differences between classical puerperal psychosis group and the group that includes other forms of psychosis were found. There is a recent article than shows improved functional outcomes in postpartum onset compared to nonpostpartum onset, but it does not focus on the classical form of the disorder [64].

In the initial hospital management, a complete clinical history and physical and neurological examination, including blood and tests and brain imaging tests, should be performed [65].

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Studies agree that the mainstay of treatment of postpartum psychosis is drug therapy [66, 67]. They recommend the use of atypical antipsychotics as treatment and prophylaxis with mood stabilizers (lithium) in high-risk cases (women with a history of postpartum psychosis). ECT has also been considered in some cases, particularly if there is a preference for breastfeeding.

The joint hospitalization of the mother and the baby seems to be the best therapeutic option. There are day hospitals for the mother and newborn. The joint income allows to evaluate the interaction between mother and child, to note early if the mother has the idea of injuring herself or her children and to avoid the presence of feelings of guilt or detachment in the mother. The physical well-being of the mother and an adequate sleep pattern must be ensured.

#### 24.7 Discussion

In the nineteenth century, many classic authors described the existence of a form of postpartum psychosis. From then until today, two distinct lines of thought have remained: one that states that it is a specific pathology and the other that considers that it is symptomatic variation classifiable as other form of psychosis. The "classic" puerperal psychosis seems to exist, at least, as a syndrome or as a group of symptoms. This is a much less common clinical picture than other forms of psychosis, which also experience a dramatic increase in incidence after childbirth. Although it shows a relatively restricted number of symptoms, puerperal psychosis often overlaps with other diagnoses. As in many other psychiatric syndromes, there is a spiraling effect of silence, according to which, since it has not been recognized in consensus taxonomies, it is kept away from most statistical and research studies. However, in recent decades the debate about postpartum psychosis has resurfaced. From the studies reviewed in this paper, it can be concluded that this is a stable clinical condition, which predicts future episodes of psychosis (with the same or different characteristics) or the development of an affective illness.

Postpartum psychosis, whether understood in either direction, is a serious disease that affects women in a period of life in which a large number of biological and psychosocial stressors are added. Such is the multiplicity of etiological factors and different forms of puerperal psychosis that it could be argued that if science managed to understand it, it would have reached the complete knowledge about psychosis (nowadays, a too distant aspiration). But there is no doubt that as Ian Brockington wrote in a recent article [68], mothers have the right to receive advice from consultants with a thorough knowledge of the psychoses of motherhood, not just the most common ones.

Regarding psychosocial factors, movements in defense of the rights of women have traditionally asked to what extent are cultural and social constructions. Around motherhood social roles of women have been built and vertebrated, and the fact of motherhood, in turn, is strongly influenced by the historical and cultural tradition. Since Simone de Beauvoir [69] said that it was the basis of gender inequality, it has been theorized broadly and deeply about this. Apart from other considerations that

are not the subject of this chapter, it is evident that many of the stressors that are considered as causative agents of puerperal psychosis impact, for historical reasons, more women than men. A widely held explanation for this asymmetry is what it might be called the hormonal hypothesis, which serves as the basis of the explanation of all puerperal psychiatric disorders. Due to the rise of biologicist paradigms, there is a marked tendency to attribute most of pathologies of women to hormonal changes. This hormonal hypothesis, just as do other reductionist assumptions (such as aminergic theory of depression), explains part of the problem while denying other.

First, because the hormonal changes could be due to environmental stress. Second, because, assuming a fundamentally biological cause, a biological solution arises (that is, centered on drug treatment), even though studies show that social support is the most important prognostic factor of puerperal psychosis.

Postpartum psychosis is an epiphenomenon that arises from the interaction of many underlying factors and should be interpreted as a complex phenomenon. Hopefully, in the coming years, advances in biological knowledge and the improvement of living conditions of women may mitigate the dramatic effect of this serious disease.

The occurrence of postpartum psychosis in a male patient after the birth of his first child is described in some case reports. An association with the phenomenon of the Couvade syndrome that is observed in all cultures has been made in other case reports [70]. Stressful life event of pregnancy in a partner related to the onset and development of a first episode of psychotic episode is reported. The term Couvade syndrome is used in psychiatry to describe psychic manifestations in men during their partners' pregnancy or during the postpartum period. Not many studies make reference to this syndrome, but it has described a wide range in its prevalence (13– 97%). Therefore, it may be more useful to think that almost all parents manifest any symptoms but not the syndrome per se which would imply that we are in front of a dimensional phenomenon [71]. Although its causes are not well understood, various theories have been proposed. In any case, this phenomenology is interesting because the need to understand these events leads us beyond the purely biological aspects that have been used to justify the psychopathological disturbances of women. We should consider the stressful and emotional connotations and sociocultural aspects of what it means to be a mother and father in society [2]. A psychotic episode represents the extreme end of that spectrum, and suggestions are made for early identification and treatment both in male and female patients.

#### References

- 1. Hamilton JA. Postpartum psychiatric problems. St. Louis, MO: Mosby; 1962.
- Klompenhouwer JL. Puerperal psychosis. PhD thesis. Rotterdam: University of Rotterdam; 1992.
- 3. Klompenhouwer J, van Hulst A, Tulen J, Jacobs M, Jacobs B, Segers F. The clinical features of postpartum psychoses. Eur Psychiatry. 1995;10:355–67.
- Katona CLE. Puerperal mental illness: comparisons with non-puerperal controls. Br J Psychiatry. 1982;141:447–52.

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Brockington IF, Cernik KF, Schofield EM, et al. Puerperal psychosis: phenomena and diagnosis. Arch Gen Psychiatry. 1981;38:829–33.

- Dean C, Williams RJ, Brockington IF. Is puerperal psychosis the same as bipolar manicdepressive disorder? A family study. Psychol Med. 1989;19(3):637–47.
- 7. Berrios GE. The history of mental symptoms. Descriptive psychopathology since the nine-teenth century. Cambridge: Cambridge University Press; 1996. p. 238–9.
- 8. Laín Entralgo P. Historia de la Medicina. Barcelona: Elsevier, Masson; 1978, reimpresión 2006.
- 9. Brockington I. Late onset postpartum psychoses. Arch Womens Ment Health. 2017;20(1):87–92. Published online 6 Oct 2016.
- Esquirol E. Des maladies mentales considérées sous leur rapport medical, hygiénique et medicolégal. Paris: Librairie de l'Académie Royale de Médecine; 1838.
- 11. Ey H, Bernard P, Brisset C. Tratado de psiquiatría. Barcelona: Masson; 1965. p. 708–16.
- 12. Bonhoeffer K. Die exogenen Reactionstypen. Archiv f Psychiatrie und Nervenkrankheiten. 1917;58:58–70.
- 13. Dean C, Kendell RE. The symptomatology of puerperal illnesses. Br J Psychiatry. 1981;139:128–33.
- 14. Kohl C. Postpartum psychoses: closer to schizophrenia or the affective spectrum? Curr Opin Psychiatry. 2004;17:87–90.
- American Psychiatric Association. Diagnostic and statistical manual of mental disorders. 3rd ed, revised. Washington, DC: APA, 1987.
- 16. Word Health Organization. The ICD-10 classification of mental and behavioral disorders: clinical descriptions and diagnostic guidelines. Geneva: Word Health Organization; 1992.
- McGorry P, Connell S. The nosology and prognosis of puerperal psychosis: A review. Compr Psychiatry. 1990;31(6):519–34.
- 18. Klompenhouwer JL, van Hulst AM. Classification of postpartum psychosis: a study of 250 mother and baby admissions in the Netherlands. Acta Psychiatr Scand. 1991;84:255–61.
- 19. Kendell RE, Chalmers JC, Platz C. Epidemiology of puerperal psychoses. Br J Psychiatry. 1987;150:662–73.
- 20. Espinoza AM, Peralta MI. Psicosis puerperales. Alcmeon, Revista Argentina de Clínica Neuropsiquiátrica. 1995;4(5).
- 21. Hays P, Douglas A. A comparison of the puerperal psychosis and the schizophreniform variant of manic depression. Acta Psychiatr Scand. 1984;69:177–81.
- 22. Muñoz RA. Postpartum psychosis as a discrete entity. J Clin Psychiatry. 1985;46:5.
- 23. Amard T. Traité analytique de la folie. 1807.
- 24. Krafft-Ebing R. Psychosis Menstrualis. Eine klinisch-forensische Studie. Stuttgart: Enke; 1902 (Ger).
- 25. Brockington I. Menstrual psychosis. World Psychiatry. 2005;4:9–17.
- 26. Jolly P. Menstruation und Psychosen. Arch Psychiatrie Nervenkr. 1914;55:637–686 (Ger).
- 27. Hopker SW, Brockington IF. Psychosis following hydatidiform mole in a patient with recurrent puerperal psychosis. Br J Psychiatry. 1991;158:122–3.
- 28. Vanderkruik R, et al. The global prevalence of postpartum psychosis: a systematic review. BMC Psychiatry. 2017;17(1):272.
- 29. Vesga-Lopez O, et al. Psychiatric disorders in pregnant and postpartum women in the United States. Arch Gen Psychiatry. 2008;65(7):805–15.
- 30. Oates M. Perinatal psychiatric disorders: a leading cause of maternal morbidity and mortality. Br Med Bull. 2003;67:219–29.
- 31. Doucet S, Jones I, Letourneau N, Dennis CL, Blackmore ER. Interventions for the prevention and treatment of postpartum psychosis: a systematic review. Arch Womens Ment Health. 2011;14(2):89–98.
- 32. Brockington IF. Infanticide. Motherhood and mental health. Oxford: Oxford University Press; 1996.
- 33. Howard LM, Goss C, Leese M, Thornicroft G. Medical outcome of pregnancy in women with psychotic disorders and their infants in the first year after birth. Br J Psychiatry. 2003;182:63–7.

- 34. Blackmore ER, Jones I, Doshi M, Haque S, Holder R, Brockington I, Craddock N. Obstetric variables associated with bipolar affective puerperal psychosis. Br J Psychiatry. 2006;138:32–6.
- 35. Robertson E. Risk of puerperal and non-puerperal recurrence of illness following bipolar affective puerperal (post-partum) psychosis. Br J Psychiatry. 2005;186(3):258.
- 36. Parfitt Y, Pike A, Ayers S. The impact of parents' mental health on parent-baby interaction: a prospective study. Infant Behav Dev. 2013;36(4):599–608.
- 37. Chaudron LH, Jefferson JW. Mood stabilizers during breastfeeding: a review. J Clin Psychiatry. 2000;61:79–90.
- 38. Gelder MG, López-Ibor JJ, Andreasen N. Tratado de Psiquiatría. Barcelona: Ars Medica; 2003. p. 1434–5.
- 39. Marks M, Lovestone S. The role of the father in parental postnatal mental health. Br J Med Psychol. 1995;68(Pt 2):157–68.
- 40. Mead M. Sexo y temperamento. México: Paidós; 1990.
- 41. Jones I, Craddock N. Familiality of the puerperal trigger in bipolar disorder: results of a family study. Am J Psychiatry. 2001;158(6):913–7.
- 42. Jones I, Hamshere M, Nangle JM, Bennett P, Green E, Heron J, Segurado R, Lambert D, Holmans P, Corvin A, Owen M, Jones L, Gill M, Craddock N. Bipolar affective puerperal psychosis: genome-wide significant evidence for linkage to chromosome 16. Am J Psychiatry. 2007;164(7):1099–104.
- 43. De Witte LD, et al. Are infectious agents involved in the pathogenesis of postpartum psychosis? J Affect Disord. 2018;229:141–4.
- Rapkin AJ, Mikacich JA, Moatkef-Imani B, Rasgon N. The clinical nature and formal diagnosis of premenstrual, postpartum, and perimenopausal affective disorders. Curr Psychiatry Rep. 2002;4:419–28.
- 45. Hannah P, Adams D, Glover V, Sandler M. Abnormal platelet 5-hydroxytrptamine uptake and imipramine binding in postnatal dysphoria. J Psychiatr Res. 1992;26:69–75.
- 46. Ahokas A, Aito M. Role of estradiol in puerperal psychosis. Psychopharmacology. 1999;147:108–10.
- 47. Kumar C, McIvor RJ, Davies T, et al. Estrogen administration does not reduce the rate of recurrence of affective psychosis alter childbirth. J Clin Psychiatry. 2003;64:112–8.
- 48. Bergink V, Kushner SA, Pop V, Kuijpens H, Lambregtse-Van den Berg MP, Drexhage RC, Wiersinga W, Nolen WA, Drexhage HA. Prevalence of autoimmune thyroid dysfunction in postpartum psychosis. Br J Psychiatry. 2011;198(4):264–8.
- 49. Bergink V, Burgerhout KM, Weigelt K, Pop VJ, de Wit H, Drexhage RC, Kushner SA, Drexhage HA. Immune system dysregulation in first-onset postpartum psychosis. Biol Psychiatry. 2013;73(10):1000–7.
- Shaaban HS, Choo HF, Sensakovic JW. Anti-NMDA-receptor encephalitis presenting as postpartum psychosis in a young woman, treated with rituximab. Ann Saudi Med. 2012;32(4):421–3.
- 51. Salmaso N, Nadeau J, Woodside B. Steroid hormones and maternal experience interact to induce glial plasticity in the cingulate cortex. Eur J Neurosci. 2009;29(4):786–94.
- 52. Magiakou MA, Mastorakos G, Rabin D, Dubbert B, Gold PW, Chrousos GP. Hypothalamic corticotropin-releasing hormone suppression during the postpartum period: implications for the increase in psychiatric manifestations at this time. J Clin Endocrinol Metab. 1996;81(5):1912–7.
- 53. Patil NJ, Yadav SS, Gokhale YA, Padwa N. Primary hypoparathyroidism: psychosis in postpartum period. J Assoc Physicians India. 2010;58:506–8.
- 54. Yu AY, Moore FG. Paraneoplastic encephalitis presenting as postpartum psychosis. Psychosomatics. 2011;52(6):568–70.
- 55. Bergink V, Armangue T, Titulaer MJ, et al. Autoimmune encephalitis in postpartum psychosis. Am J Psychiatry. 2015;172:901–8.
- 56. Veen C, et al. P. 1. e. 010 Tryptophan pathway alterations in the postpartum period and in acute postpartum psychosis and depression. Eur Neuropsychopharmacol. 2015;25:S215.

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57. Sharma V. Role of sleep loss in the causation of puerperal psychosis. Med Hypotheses. 2003;61(4):477-81.

- 58. Terp IM, Mortensen PB. Post-partum psychoses. Clinical diagnoses and relative risk of admission after parturition. Br J Psychiatry. 1998;172:521.
- 59. Brockington I. Postpartum psychiatric disorders. Lancet. 2004;363:303.
- Shahani L. A father with postpartum psychosis. BMJ Case Rep. 2012;2012;bcr1120115176. https://doi.org/10.1136/bcr.11.2011.5176.
- latz C, Kendell RE. A matched-control follow-up and family study of "puerperal psychoses". Br J Psychiatry. 1988:153:90–4.
- Davidson J, Robertson E. A follow-up study of postpartum illness, 1946–1978. Acta Psychiatr Scand. 1985;71:451–7.
- 63. Munk-Olsen T, Laursen TM, Meltzer-Brody S, Mortensen PB, Jones I. Psychiatric disorders with postpartum onset: possible early manifestations of bipolar affective disorders. Arch Gen Psychiatry. 2012;69(4):428–34.
- 64. Burgerhout KM, Kamperman AM, Roza SJ, Lambregtse-Van den Berg MP, Koorengevel KM, Hoogendijk WJ, Kushner SA, Bergink V. Functional recovery after postpartum psychosis: prospective longitudinal study. J Clin Psychiatry. 2017;78(1):122–8.
- 65. Bergink V, et al. Treatment of psychosis and mania in the postpartum period. Am J Psychiatr. 2015;172(2):115–23.
- Bergink V, Bouvy PF, Vervoort JSP, Koorengevel KM, Steegers EAP, Kushner SA. Prevention of postpartum psychosis and mania in women at high risk. Am J Psychiatry. 2012;169:609–15.
- 67. Yonkers KA, Wisner KL, Stowe Z, Leibenluft E, Cohen L, Miller L, Manber R, Viguera A, Suppes T, Altshuler L. Management of bipolar disorder during pregnancy and the postpartum period. Am J Psychiatry. 2004;161:608–62.
- 68. Brockington I. Some unusual forms of early onset postpartum psychosis. Arch Womens Ment Health. 2017;20(1):71–6.
- 69. de Beauvoir S. El Segundo Sexo. Trad. Juan María Puente. Buenos Aires: Sudamericana; 1999.
- 70. Shapiro S, Nass J. Postpartum psychosis in the male. Psychopathology. 1986;19:138–42.
- 71. Maldonado-Durán M, Lecanne EF. El padre en la etapa perinatal. Perinatol Reprod Hum. 2008;22:145–54.



# Psychological Symptoms and Treatment in the Menopause

25

Sara Barbeito, Patricia Vega, and Sonia Ruiz de Azúa

#### **Abstract**

Nowadays, the menopause is an issue of concern for women who suffer it and for the scientific community. The menopause is a period in which women stop menstruating and they experience some changes in their body that mark end of their reproductive period; we noted that symptoms are not the same in all women. There are some biological and socioeconomic factors which affect the form of appearance and symptoms: anxiety, depression, host flashed, sleep disorder, incontinence, sexual difficulties, etc. It was found that these types of symptoms do not affect in the same way or intensity to all women. Also it was explained the variables that have been related with a greater risk and protection, for example, the attitude or the belief about the menopause was an important factor related to this experience. The principal treatment of these symptoms was reviewed in this manuscript, explained by the principal findings of the literature. In conclusion, there are some types of

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treatments that have been proven effective and should include like coadjuvant treatment to improve the quality of life of the women with these problems. Hence, a multidisciplinary and preventive treatment could be the key.

#### 25.1 Introduction

The menopause is a period in which women stop menstruating and they experience some changes in their body that mark end of their reproductive period. The menopause appears usually between 45 and 54 years old, mean age of onset around 51 years old [1].

Biologically, all women are born with a finite number of eggs, stored in the ovaries. The ovaries regulate the ovulation and menstruation using hormones like estrogen, progesterone, and monotropic FSH. The menopause begins with some variations in menstrual cycle (less duration, irregular periods), hot flashes, and mood change.

The process of menopause is not sudden; it happens gradually around three stages:

- Perimenopause: This stage can range from 2 to 10 years before the start of menopause. The ovaries produce less estrogen gradually; however, in this stage, the ovaries still release eggs and start the menopause symptoms.
- Menopause: Is the period with the absence of menstruation for 12 months.
- Postmenopause: Is the time between menopause and the 3 years after. In this stage, the symptoms of menopause decrease.

#### 25.2 Causes

All women will experience the menopause around 50 years old, but those symptoms will be different in each woman.

The menopause is a natural process in the life of all women. When women born, they have around 1–3 million of eggs. Around their life, the eggs are gradually lost through ovulation and through atresia process. Menopause occurs when ovaries produce less estrogen and progesterone and the follicle-stimulating hormone stops producing eggs.

Therefore, the changes of sexual hormonal balance cause menopause. Usually, these changes are natural and progressive, although sometimes the menopause process is not natural and is caused by medical treatments which cause lowering of estrogen.

There are some factors that are related to menopause, such as the use of oral contraceptives, high number of pregnancies, late pregnancy, and longer time until occurrences of menses are associated with later onset of natural menopause [2, 3]. However, tobacco use is related to early menopause; current smokers had a 35%

higher risk of earlier natural menopause, and former smokers had a 27% higher risk of earlier natural menopause in comparison with never-smokers [4]. Marital status, living environment, employment, BMI, breastfeeding, physical activity, smoking amount, and consumption of alcohol were not associated with age at menopause [5].

#### 25.3 Symptoms

There are individual and cultural differences in the symptoms of menopause [6]. Some biological and socioeconomic factors affect the form of appearance and symptoms [7, 8].

It is therefore considered appropriate to create special programs to manage the symptoms associated with menopause that take into account ethnic differences in the treatment of menopausal symptoms [9].

Some of the most common symptoms of the menopause are the following:

- Vasomotor symptoms: Hot flashes, cold sweats, bouts of pounding, or irregular heartbeat (75% of women suffer from them, authors even put this figure to 85%) [10, 11]. The irregular heartbeat scares women because for them it is very difficult to calm. There are other causes of this symptom such as stress, anxiety, and caffeine and nicotine consumption and are very important to discriminate of other several pathologies.
- Sleep disorders: Insomnia, waking many times during the night, and turning are the most frequently disturbing in almost 40% of women who suffer some of them [12, 13]. Usually, the sleep is less restful and is very difficult for the women getting to sleep.
- Vaginal dryness: When the estrogen levels drop, the vaginal tissue becomes drier, thinner, and less elastic. The less lubrication leads to sex becoming uncomfortable and decreased sexual interest (over 55% of women) [14]. These symptoms can affect emotionally to women and are very important to treat if it affects quality of life.
- Incontinence: There are three types of incontinence. The stress incontinence happens because the internal muscles fail when the woman is laughing, coughing, or sneezing. The urge incontinence is caused by abnormal bladder contractions and it is empty whenever, despite the efforts to resist the urine. The overflow incontinence is when the individual does not realize the bladder is full (76% of women suffer incontinence) [15]. There is a relationship between the number of pregnancies and the prevalence incontinence [16].
- Mood lability: The most common changes in the mood are irritability, depression, and anxiety [17]. The irritability, depression, and anxiety in the menopause are caused by the sudden drop in levels of estrogen affecting the neurotransmitters which regulate the mood in the brain, such as serotonin and dopamine. Sometimes, if the problem is not treated correctly, it can lead to panic attacks.
- Cognitive difficulties: Is very usual for women in the menopausal stage concerning about troubles remembering things or suffer mental blocks. The estrogen defi-

ciency and the ages and sleep disorders can increase the concentrating difficulties. The problems in the memory could affect the functioning of the women, forgetting some important meetings [18]. Other studies found that cognitive performance declined during the transition to menopause but improved in early menopause associated with hormonal fluctuations [19]. However, there found improvements in working memory and perceptual speed during the transition [20].

- Headaches: This symptom could be related to the hormonal imbalance in the menopause. When the body begins slowing down its production of estrogen, the women suffer more and worse headaches.
- Hair loss or thinning and brittle nails: The estrogen deficiency weakens the hair follicles which is very usual in the head and in other parts of the body. The nail appearance could indicate nutritional deficiency or hormonal imbalance. In the menopause the nails are softer and crack, split, or break more frequently, the socalled brittle nails.
- Weight gain: Some authors said that the weight gain is not related to menopause; however, fewer estrogen hormones could retain more fat cells, and lower testosterone levels lead to a decreased metabolic rate, so the women need fewer calories daily. In this way, it is necessary to make changes in diet and exercise.
- Fracture risk: The early menopause, before 45 years, is associated with an increased risk of osteoporosis and fractures compared with those with age at menopause after 45 years. There is no found relationship with respect to the site of fractures [21].

All these symptoms clearly affect the quality of life of women. The women with menopause who suffer vasomotor symptoms experience a decreased perception of her health; thus, a correct treatment of the hormones in order to reduce the symptoms is very important [22].

The duration of symptoms may last several years with a mean duration between 5 and 10 years [23]. It must be considered that psychological factors (anxiety, self-esteem, negative beliefs, and thoughts) will influence the experimentation of hot flashes [24].

# 25.4 Changes After Menopause

After menopause, a series of changes could occur frequently: osteoporosis [25], chronic cardiovascular risk [26], type 2 of diabetes mellitus [27], and 60% increase risk of metabolic syndrome [28]. So the early onset of the natural menopause is a risk factor for cardiovascular disease, atherosclerosis, and stroke [29].

The effects of menopause on metabolic syndrome include central obesity with changes in the fat tissue distribution, potential increase in insulin resistance, changes in serum lipid concentrations, and hypertension. Severe metabolic syndrome increases the risk of cardiovascular disease and type 2 diabetes mellitus [30].

Associating with this period, a greater vulnerability for cognitive decrease and depressive symptoms and disorders was found [18]. Nevertheless, these results, necessarily, cannot be generalized beyond the studies included in this review.

#### 25.5 Early Menopause

The premature ovarian failure occurs when the menopause appears before 40 years old. The prevalence of this disorder is uncommon but not rare, between 1% and 3% [31]. For most women there are no signs that precede the cessation of periods, having a normal menstrual history, menarche, and fertility prior to the onset of premature ovarian failure [32].

The diagnosis of early menopause is difficult to achieve; most clinicians diagnose menopause when women are on amenorrhoea for 3–6 months and the FSG concentrations are above 40 mIU/mL and low estrogen levels [32].

There are some variables that can predict the age of onset of the menopause, as higher educational level, prior oral contraceptive use, and higher weight at baseline, as well as being employed, not smoking, consuming alcohol, having less physical activity, and having better self-rated health over follow-up. These variables were significantly associated with later age at the final menstrual period [33]. Other studies have shown that socioeconomic status is not related to menopause age and the smoker women with less body mass index reached earlier their menopause [34].

The majority of women who suffer early menopause were worried about their fertility, bones, and emotional well-being; 49% of women requested psychological support because they felt a negative impact in their self-esteem [31].

The early menopause accelerate physically aging [35], and it has a relation to onset diabetes [36] and to a higher risk of venous thromboembolism [37].

# 25.6 Emotional Symptoms

#### 25.6.1 Beliefs About Symptoms

The beliefs of women about the menopause will influence the way they make this transition [38]. Some psychological factors will influence in the perception and the cognition of the hot flashes and the night sweats [39]. Hunter and Rendall [24] found two different points of view about menopause: first ones, women with a positive view of menopause and who saw it as a cessation of menstruation and pregnancy risk and, second ones, who related it with aging and the negative image.

Women who have negative attitudes toward menopause are more likely to suffer severe menopausal symptoms during the transition [40, 41]. However, the belief of the women is not only important for the symptomatology; the severity of menopausal complaints might be related to the attitudes of the husbands toward menopause [41].

# 25.6.2 Anxiety and Depression

The transition to menopause is often accompanied by negative physical and emotional changes that can significantly affect to the quality of life of women. The menopausal women are four times more likely to experience a major depressive

episode during the menopause [42]. Women with low anxiety before menopause at early or late perimenopause or postmenopause have more probability to report high-anxiety symptoms, independent of life events, financial problems, perceived health, and vasomotor symptoms [43].

Several studies found an association between menopause, anxiety, and depression, suggesting that depressive mood was related to the severity of menopausal symptoms [44]. The strongest predictor of depression in postmenopause was adverse childhood experiences, a history of depressive symptoms or past major depressive episodes [45–47]. Also, the intensity of depression depended on the type of menopause, natural menopause developed moderate and severe depression, and those who had undergone ovariectomy had mild depression symptoms. Women with essential hypertension and without nocturnal variations in blood pressure had highest level of depression [48].

The factors associated with depression in menopause were personal history of psychological problems [49], the socio-educational status [50], the life events [51], the worst previous health [52], the body index, the smoking [34], the shorter exposure to endogenous estrogens, the shorter reproductive period [53], and the attitude toward menopause [24].

However, other studies do not find such a clear relationship between the transition to menopause and the increase of the risk of emotional disorders, finding that only women who experienced psychosocial stress, severe vasomotor symptoms, and history of mood disorders experience anxiety and depression [54]. Therefore, the depressive mood should not automatically be attributed to the transition to menopause [24]. Likewise, it was found that the treatment with selective tissue estrogenic activity regulator could improve the depression symptoms during transition menopause [55].

#### 25.7 Treatments

There are some pharmacological treatments to reduce the physical symptoms of menopause. However, the psychological symptoms can influence in the severity of these symptoms. Thus, there are other non-pharmacological treatments that women might benefit to improve the experience of menopause, treat the associated symptoms, and improve function and quality of life [56, 57].

# 25.7.1 Yoga

The evidence about the yoga as a therapy in women with menopause is not clear. There were randomized controlled clinical trials using yoga in menopause women. There was moderate evidence for short-term effects on psychological symptoms (depression, anxiety, sleep disorders). No evidence was found for total menopausal symptoms, somatic symptoms, vasomotor symptoms, or urogenital symptoms [58]. One study concluded that 3 months of yoga is effective to reduce total

menopausal symptoms, psychological symptoms, somatic symptoms, and urogenital symptoms [59]. However, other studies did not find enough evidence to suggest that yoga is an effective therapy to reduce the symptomatology of the menopause [60–63]. The yoga decreases stress and depression symptoms and improves the quality of life of postmenopausal women compared to control or exercise groups [64]. Yoga was not associated with adverse events, so this therapy can be used like adjuvant treatment.

#### 25.7.2 Physical Exercise

Some clinical trials about the effectivity of physical exercise programs in postmenopausal women did not found evidence reducing vasomotor symptoms [65, 66]; nevertheless, other studies found that 6 months aerobic exercise training improves sleep quality and reduces the hot flashes [67]. There is an evidence that the exercise improves bone density [66] and skeletal muscle mass index [68] being useful to prevent osteoporosis. Pelvic floor muscle training is useful to improve stress urinary incontinence and, thus, the quality of life of postmenopausal women [69].

#### 25.7.3 Diet

Whiteman [70] conducted an observational study with 1087 women, 56% of them refer hot flashes, but the smoker women with high body max index (BMI) had greater probability to experience hot flashes, and these ones were more intense and frequent.

A clinical trial about the exercise and/or diet with 118 postmenopausal women found that the combination of diet and exercise was more effective than only one of them to improve quality of life, psychological symptoms, and general health [71]. Other authors noted the importance of combining diet at this stage of life with isoflavones, calcium, and vitamin D [72].

The relationship between the diet and the menopause is not clear; some studies found that higher fat, protein, and meat are associated with delayed onset of menopause, while high carbohydrate vegetable, fiber, and cereal products are related to early menopause [3]. However, other studies did not found a relationship between dietary habits and menopause [2].

### 25.7.4 Acupuncture

A meta-analysis confirmed that acupuncture improves hot flash frequency and severity and vasomotor symptoms in natural menopause [73, 74]. Acupuncture is effective for controlling menopausal vasomotor symptoms compared with no treatment, but acupuncture appeared to be less effective than hormone therapy. However, there was no high-quality consistent evidence of these studies.

#### 25.8 Psychological Treatments

There were few studies of psychological interventions in the climacteric, the period between before and after menopause [75].

#### 25.8.1 Cognitive Behavioral Therapy (CBT)

The National Institute for Health and Care Excellence (NICE) guideline on diagnosis and management of menopause recommends hormonal therapy and cognitive behavioral therapy to improve menopausal symptoms [76]. The CBT improved the anxiety and depressed mood and also helped women to self-manage their vasomotor symptoms [76].

Keefer, in 2005, achieved a pilot study with 19 women and found that 48% of women who enrolled in CBT reduced significantly the vasomotor symptoms; however, the findings should be treated with caution because the sample was very small [77].

The CBT was found to be effective reducing menopausal symptoms such as hot flashes, night sweats, sleep problems, sexual difficulties, muscle aches, anxiety, and depression and improving quality of life [24, 72, 75–79]. Also, there were found favorable results for CBT and physical exercise in women with breast cancer treatment-induced menopause on endocrine symptoms, sexuality, and physical function [78].

The cognitive behavioral kind of techniques that are effective in women with mild menopause symptoms are the relaxation, the psychoeducation, the nutrition knowledge and the problem-solving techniques [24, 75, 78–81].

The self-help CBT group showed lower impact of perimenopause symptoms in their live and the improvements are maintained 26 weeks after CBT [82, 83].

One of the most important keys to improve the general health of the menopausal women is to improve the knowledge about physical and psychological changes in menopausal period, in destignatization, in social interaction and support, and to teach women to cope this stage [80].

#### 25.8.2 Mindfulness

The aim of mindfulness therapy is to help people to recognize and differentiate the thoughts, sensations, and feelings as events in the mind without overidentifying them [84].

A study with 110 late perimenopausal and early postmenopausal women that experience severe hot flashes and night sweats found a clinically significant reduction in the degree of bother and distress in women who participated in mindfulness-based stress reduction therapy [85]. The mindful is related to sleep disorders in postmenopausal women; the women who suffer insomnia are less mindful than those without insomnia, and these interventions may be beneficial [86].

#### 25.8.3 Psychoeducation

Education, in general, caused benefits and contributes to improve the symptoms and the adherence to other treatments, especially in menopause [87]. Psychoeducation improved the attitudes about the menopause, reduced the severity of symptoms [77], changed the perception of women, and improved the quality of life and the autonomic nervous system activity [84]. A systematic review [85] about the effectiveness of psychoeducation in postmenopausal women and breast cancer survivors found that psychoeducational interventions alleviate hot flashes and vasomotor symptoms in general; however, there are not enough studies, and more studies are necessary.

The lifestyle and perception of women about menopause will affect the severity and frequency of symptoms; however, these factors could modify with some educative sessions that can help to prevent symptoms changing these variables.

#### 25.8.4 Holistic Approach

Menopause has an important impact in several areas of life of the women affecting physically, psychologically, and socially. Some authors [72] stood out that the best care in menopause is to treat all the factors together that could affect the life of women. This approach includes several clinical specialists that must enroll in the treatment: gynecologists, endocrinologists, mental health, physical activity, etc. And also, the collaboration and family support of women are very necessary.

#### 25.9 Conclusions

The aim of this chapter was to review the symptomatology of menopause and the best method to treat it correctly. The menopause is a normal process for all women, and it is necessary to focus more attention in the symptoms and in the real problems of this period because there is a high proportion of the population who suffer these symptoms and up to the present there is no enough attention and the treatment is not adequate.

Many biological changes occur in menopause; however, the biological changes are not the most important changes. There are some evidence that other treatments (psychotherapy, diet, and physical activity) can help women to improve their symptoms and their quality of life.

So the attitude of women about menopause affect how they experience their symptoms and their quality of life. Major risk factors were associated with higher emotional and physical symptoms, so early detection in this population could bring earlier treatment to prevent even risk factors and enhance protective information and support. Therefore, a multidisciplinary and preventive treatment could be the key to reducing dysfunctional beliefs about menopause, and thus, reduce stress, negative coping strategies and many of the associated symptoms.

#### References

 World Health Organisation. Research on menopause. Report of a WHO Scientific group. WHO technical report N670. Geneva: WHO; 1981.

- Lujan-Barroso L, Gibert K, Obón-Santacana M, Chirlaque MD, Sánchez MJ, Larrañaga N, Barricarte A, Quirós JR, Salamanca-Fernández E, Colorado-Yohar S, Gómez-Pozo B, Agudo A, Duell EJ. The influence of lifestyle, diet, and reproductive history on age at natural menopause in Spain: analysis from the EPIC-Spain sub-cohort. Am J Hum Biol. 2018;30:e23181.
- Nagel G, Altenburg HP, Nieters A, Boffetta P, Linseisen J. Reproductive and dietary determinants of the age at menopause in EPIC-Heidelberg. Maturitas. 2005;52(3–4):337–47.
- 4. Lay AAR, Duarte YAO, Filho ADPC. Factors associated with age at natural menopause among elderly women in São Paulo, vol. 26. Menopause: Brazil; 2019. p. 211–6.
- 5. Kaczmarek M. The timing of natural menopause in Poland and associated factors. Maturitas. 2007;57(2):139–53.
- Jones EK, Jurgenson JR, Katzenellenbogen JM, Thompson SC. Menopause and the influence of culture: another gap for Indigenous Australian women? BMC Womens Health. 2012;12:431.
- 7. Winterich JA, Umberson D. How women experience menopause: the importance of social context. J Women Aging. 1999;11(4):57–73.
- 8. Melby MK, Lock M, Kaufert P. Culture and symptom reporting at menopause. Hum Reprod Update. 2005;11:495–512.
- 9. Im EO, Ko Y, Hwang H, Chee W. Symptom-specific or holistic menopausal symptom management. Health Care Women Int. 2012;33(6):575–92.
- Avis NE, Crawford SL, McKinlay SM. Psychological behavioural, and health factors related to menopause symptomatology. Womens Health. 1997;3:103–20.
- 11. Kadakia KC, Loprinzi CL, Barton DL. Hot flashes: the ongoing search for effective interventions. Menopause. 2012;19(7):719–21.
- 12. Dennerstein L, Dudley EC, Hopper JL, Guthrie JR, Burger HG. A prospective population-based study of menopausal symptoms. Obstet Gynecol. 2000;96:351–8.
- Ameratunga D, Goldin J, Hickey M. Sleep disturbance in menopause. Intern Med J. 2012;42(7):742–7.
- van Geelen JM, van de Weijer PH, Arnolds HT. Urogenital symptoms and resulting discomfort in non-institutionalized Dutch women aged 50 to 75 years. Ned Tijdschr Genesk. 1996;140:713–6.
- 15. Trutnovsky G, Rojas RG, Mann KP, Dietz HP. Urinary incontinence: the role of menopause. Menopause. 2014;21:399–402.
- 16. Findik RB, Unluer AN, Sahin E, Bzkurt OF, Karakaya J, Unsal A. Urinary incontinence in women and its relation with pregnancy, mode of delivery, connective tissue disease and other factors. Adv Clin Exp Med. 2012;21(2):207–13.
- Cohen LS, Soares CN, Vitonis AF, Otto MW, Harlow BL. Risk for new onset of depression during the menopausal transition: the Harvard study of moods and cycles. Arch Gen Psychiat. 2006;63:385–90.
- 18. Weber MT, Maki PM, McDermott MP. Cognition and mood in perimenopause: a systematic review and meta-analysis. J Steroid Biochem Mol Biol. 2014;142:90–8.
- Greedale GA, Huang M, Wight RG, Seeman T, Luetters C, Avis NE, et al. Effects of the menopause transition and hormone use on cognitive performance in midlife women. Neurology. 2009;21:1850-7.
- 20. Fuh JL, Wang SJ, Lee SJ, Lu SR, Juang KD. A longitudinal study of cognition change during early menopausal transition in a rural community. Maturitas. 2006;53(4):447–53.
- Anagnostis P, Siolos P, Gkekas NK, Kosmidou N, Artzouchaltzi AM, Christou K, Paschou SA, Potoupnis M, Kenanidis E, Tsiridis E, Lambrinoudaki I, Stevenson JC, Goulis DG. Association between age at menopause and fracture risk: a systematic review and meta-analysis. Endocrine. 2019;63:213–24.
- 22. Dibonaventura MD, Chandran A, Hsu MA, Bushmakin A. Burden of vasomotor symptoms in France, Germany, Italy, Spain, and the United Kingdom. Int J Womens Health. 2013;5:261–9.

- 23. Woods NF, Mitchell ES. Symptoms during the perimenopause: prevalence, severity, trajectory, and significance in women's lives. Am J Med. 2005;118(Suppl 12B):14–24.
- 24. Hunter M, Rendall M. Bio-psycho-socio-cultural perspectives on menopause. Best Pract Res Clin Obstet Gynaecol. 2007;21(2):261–74.
- 25. Riggs BL, Khosla S, Melton J III. Sex steroids and the construction and conservation of the adult skeleton. Endocr Rev. 2002;23(3):279–302.
- 26. RamezaniTehrani F, Behboudi-Gandevani S, Ghanbarian A, Azizi F. Effect of menopause on cardiovascular disease and its risk factors: a 9-year follow-up, population-based, cohort study. Climacteric. 2014;17(2):164–72.
- 27. Ren Y, Zhang M, Liu Y, Sun X, Wang B, Zhao Y, Liu D, Liu X, Zhang D, Liu F, Cheng C, Liu L, Chen X, Zhou Q, Hu D. Association of menopause and type 2 diabetes mellitus. Menopause. 2019;26(3):325–30.
- 28. Eshtiaghi R, Esteghamati A, Nakhjavani M. Menopause is an independent predictor of metabolic syndrome in Iranian women. Maturitas. 2010;65(3):262–6.
- Costanian C, McCague H, Edgell H, Ardern CI, Tamim H. Changes in adiposity and other factors in relation to age at natural menopause: analyses from the coronary artery risk development (CARDIA) study. Menopause. 2019;26:162–71.
- Mumusoglu S, Yildiz BO. Metabolic syndrome during menopause. Curr Vasc Pharmacol. 2018; https://doi.org/10.2174/1570161116666180904094149.
- 31. Singer D, Mann E, Hunter MS, Pitkin J, Panay N. The silent grief: psychosocial aspects of premature ovarian failure. Climacteric. 2011;14(4):428–37.
- 32. Woad KJ, Watkins WJ, Prendergast D, Shelling AN. The genetic basis of premature ovarian failure. Aust N Z J Obstet Gynaecol. 2006;46(3):242–4.
- Gold EB, Crawford SL, Avis NE, Crandall CJ, Matthews KA, Waetjen LE, Lee JS, Thurston R, Vuga M, Harlow SD. Factors related to age at natural menopause: longitudinal analyses from SWAN. Am J Epidemiol. 2013;178:70–83.
- 34. Hardy R, Kuh D, Wadsworth M. Smoking, body mass index, socio-economic status and the menopausal transition in a British national cohort. Int J Epidemiol. 2000;29:845–51.
- 35. Li S, Rosenberg L, Wise LA, Boggs DA, Lavalley M, Palmer JR. Age at natural menopause in relation to all-cause and cause-specific mortality in a follow-up study of US black women. Maturitas. 2013;75(3):246–52.
- 36. Monterrosa-Castro A, Blümel JE, Portela-Buelvas K, Mezones-Holguín E, Barón G, Bencosme A, Benítez Z, Bravo LM, Calle A, Chedraui P, Flores D, Espinoza MT, Gómez G, Hernández-Bueno JA, Laribezcoa F, Lima S, Martino M, Mostajo D, Ojeda E, Onatra W, Sánchez H, Navarro D, Tserotas K, Vallejo MS, Witis S, Zuñiga MC, Collaborative Group for Research of the Climacteric in Latin America (REDLINC). Type II diabetes mellitus and menopause: a multinational study. Climacteric. 2013;16:663–72.
- 37. Canonico M, Plu-Bureau G, O'Sullivan MJ, Stefanick ML, Cochrane B, Scarabin PY, Manson JE. Age at menopause, reproductive history, and venous thromboembolism risk among postmenopausal women: the Women's Health Initiative hormone therapy clinical trials. Menopause. 2014;21:214–20.
- 38. Hunter MS. Editorial: depression and the menopause. BMJ. 1996;313:1217e1218.
- 39. Hunter MS, Chilcot J. Testing a cognitive model of menopausal hot flushes and night sweats. J Psychosom Res. 2013;74(4):307–12.
- 40. Ayers B, Forshaw M, Hunter MS. The impact of attitudes towards the menopause on women's symptom experience: a systematic review. Maturitas. 2010;65(1):28–36.
- 41. Aksu H, Sevinçok L, Kücük M, Sezer SD, Oğurlu N. The attitudes of menopausal women and their spouses towards menopause. Clin Exp Obstet Gynecol. 2011;38(3):251–5.
- 42. Bromberger JT, Kravitz HM, Chang Y, Cyranowski JM, Brown C, Matthews KA. Major depression during and after the menopausal transition: Study of Women's Health Across the Nation (SWAN). Psychol Med. 2011;41:1879–88.
- 43. Bromberger JT, Kravitz HM, Chang Y, Randolph JF Jr, Avis NE, Gold EB, Matthews KA. Does risk for anxiety increase during the menopausal transition? Study of women's health across the nation. Menopause. 2013;20(5):488–95.

44. Pérez-López FR, Pérez-Roncero G, Fernández-Iñarrea J, Fernández-Alonso AM, Chedraui P, Llaneza P, The MARIA (MenopAuse Risk Assessment) Research Group. Resilience, depressed mood, and menopausal symptoms in postmenopausal women. Menopause. 2014;21:159–64.

- 45. Freeman EW. Associations of depression with the transition to menopause. Menopause. 2010:17:823–7.
- 46. Bromberger JT, Schott L, Kravitz HM, Joffe H. Risk factors for major depression during midlife among a community sample of women with and without prior major depression: are they the same or different? Psychol Med. 2015;45:1653–64.
- 47. Epperson CN, Sammel MD, Bale TL, Kim DR, Conlin S, Scalice S, Freeman K, Freeman EW. Adverse childhood experiences and risk for first-episode major depression during the menopause transition. J Clin Psychiatry. 2017;78(3):e298–307.
- 48. Larëva NV, Govorin AV. Psychosomatic relationships in postmenopausal women. Ter Arkh. 2013;85(3):86–9.
- 49. Hunter MS. Psychological and somatic experience of the menopause: a prospective study. Psychosom Med. 1990;52:357e367.
- Cooke DJ, Greene JG. Types of life events in relation to symptoms at the climacterium. J Psychosom Res. 1981;25:5e11.
- 51. Hunter M, Liao K. Evaluation of a four-session cognitive-behavioural intervention for menopausal hot flushes. Brit J Health Psychol. 1996;1:113–25.
- 52. Dennerstein L, Lehert P, Burger H, et al. Mood and the menopause transition. J Nerv Ment Dis. 1999;187:685e691.
- 53. Georgakis MK, Thomopoulos TP, Diamantaras AA, Kalogirou EI, Skalkidou A, Daskalopoulou SS, Petridou ET. Association of age at menopause and duration of reproductive period with depression after menopause: a systematic review and meta-analysis. JAMA Psychiatry. 2016;73(2):139–49.
- 54. Hickey M, Bryant C, Judd F. Evaluation and management of depressive and anxiety symptoms in midlife. Climacteric. 2012;15(1):3–9.
- 55. Kulkarni J, Gavrilidis E, Thomas N, Hudaib AR, Worsley R, Thew C, Bleeker C, Gurvich C. Tibolone improves depression in women through the menopause transition: a double-blind randomized controlled trial of adjunctive tibolone. J Affect Disord. 2018;236:88–92.
- 56. Tom SE, Cooper R, Patel KV, Guralnik JM. Menopausal characteristics and physical functioning in older adulthood in the National Health and Nutrition Examination Survey III. Menopause. 2012;19(3):283–9.
- 57. Mann E, Singer D, Pitkin J, Panay N, Hunter MS. Psychosocial adjustment in women with premature menopause: a cross-sectional survey. Climacteric. 2012;15(5):481–9.
- 58. Cramer H, Lauche R, Langhorst J, Dobos G. Effectiveness of yoga for menopausal symptoms: a systematic review and meta-analysis of randomized controlled trials. Evid Based Complement Alternat Med. 2012;2012:863905.
- 59. Joshi S, Khandwe R, Bapat D, Deshmukh U. Effect of yoga on menopausal symptoms. Menopause Int. 2011;17(3):78–81.
- 60. Lee MS, Kim JI, Ha JY, Boddy K, Ernst E. Yoga for menopausal symptoms: a systematic review. Menopause. 2009;16(3):602–8.
- 61. Elavsky S, McAuley E. Exercise and self-esteem in menopausal women: a randomized controlled trial involving walking and yoga. Am J Health Promot. 2007;22(2):83–92.
- 62. Ayers B, Smith M, Hellier J, Mann E, Hunter MS. Effectiveness of group and self-help cognitive behavior therapy in reducing problematic menopausal hot flushes and night sweats (MENOS 2): a randomized controlled trial. Menopause. 2012;19(7):749–59.
- 63. Chattha R, Nagarathna R, Padmalatha V, Nagendra HR. Effect of yoga on cognitive functions in climacteric syndrome: a randomised control study. BJOG. 2008;115(8):991–1000.
- 64. Jorge MP, Santaella DF, Pontes IM, Shiramizu VK, Nascimento EB, Cabral A, Lemos TM, Silva RH, Ribeiro AM. Hatha Yoga practice decreases menopause symptoms and improves quality of life: a randomized controlled trial. Complement Ther Med. 2016;26:128–35.
- 65. Daley A, Stokes-Lampard H, Macarthur C. Exercise for vasomotor menopausal symptoms. Cochrane Database Syst Rev. 2011;11:5.

- Babatunde OO, Forsyth JJ, Gidlow CJ. A meta-analysis of brief high-impact exercises for enhancing bone health in premenopausal women. Osteoporos Int. 2012;23(1):109–19.
- Mansikkamäki K, Raitanen J, Nygård CH, Heinonen R, Mikkola T, EijaTomás, Luoto R. Sleep quality and aerobic training among menopausal women—a randomized controlled trial. Maturitas. 2012;72(4):339–45.
- 68. Aragão FR, Abrantes CG, Gabriel RE, Sousa MF, Castelo-Branco C, Moreira MH. Effects of a 12-month multi-component exercise program on the body composition of postmenopausal women. Climacteric. 2014;17:155–63.
- 69. Pereira VS, de Melo MV, Correia GN, Driusso P. Vaginal cone for postmenopausal women with stress urinary incontinence: randomized, controlled trial. Climacteric. 2012;15(1):45–51.
- 70. Whiteman MK, Staropoli CA, Lengenberg PW, McCarter RJ, Kjerulff KH, Flaws JH. Smoking, body mass, and hot flashes in midlife women. Obstet Gynecol. 2003;101:264–72.
- 71. Imayama I, Alfano CM, Kong A, Foster-Schubert KE, Bain CE, Xiao L, Duggan C, Wang CY, Campbell KL, Blackburn GL, McTiernan A. Dietary weight loss and exercise interventions effects on quality of life in overweight/obese postmenopausal women: a randomized controlled trial. Int J Behav Nutr Phys Act. 2011;8:118.
- Kalra B, Agarwal S, Magon S. Holistic care of menopause: understanding the framework. J Midlife Health. 2012;3(2):66–9.
- 73. Chiu HY, Pan CH, Shyu YK, Han BC, Tsai PS. Effects of acupuncture on menopause-related symptoms and quality of life in women in natural menopause: a meta-analysis of randomized controlled trials. Menopause. 2015;22:234–44.
- 74. Avis NE, Coeytaux RR, Isom S, Prevette K, Morgan T. Acupuncture in menopause (AIM) study: a pragmatic, randomized controlled trial. Menopause. 2016;23:626–37.
- Alder J, EymannBesken K, Armbruster U, Decio R, Gairing A, Kang A, Bitzer J. Cognitivebehavioural group intervention for climacteric syndrome. Psychother Psychosom. 2006;75(5):298–303.
- Hunter MS, Griffiths A, Mann E, Moss-Morris R, Smith M, Slade P. NICE guidance on menopause: cognitive behavioural therapy is an effective non-hormonal intervention for managing vasomotor symptoms. BMJ. 2015;351:h6434.
- 77. Keefer L, Blanchard EB. A behavioral group treatment program for menopausal hot flashes: results of a pilot study. Appl Psychophysiol Biofeedback. 2005;30(1):21–30.
- 78. Duijts SF, van Beurden M, Oldenburg HS, Hunter MS, Kieffer JM, Stuiver MM, Gerritsma MA, Menke-Pluymers MB, Plaisier PW, Rijna H, Lopes Cardozo AM, Timmers G, van der Meij S, van der Veen H, Bijker N, de Widt-Levert LM, Geenen MM, Heuff G, van Dulken EJ, Boven E, Aaronson NK. Efficacy of cognitive behavioral therapy and physical exercise in alleviating treatment-induced menopausal symptoms in patients with breast cancer: results of a randomized, controlled, multicenter trial. J Clin Oncol. 2012;30(33):4124–33.
- 79. Larroy García C, Gómez-Calcerrada SG. Cognitive-behavioral intervention among women with slight menopausal symptoms: a pilot study. Span J Psychol. 2011;14(1):344–55.
- 80. Balabanovic J, Ayers B, Hunter MS. Cognitive behaviour therapy for menopausal hot flushes and night sweats: a qualitative analysis of women's experiences of group and self-help CBT. Behav Cogn Psychother. 2013;41(4):441–57.
- 81. Green SM, Haber E, McCabe RE, Soares CN. Cognitive-behavioral group treatment for menopausal symptoms: a pilot study. Arch Womens Ment Health. 2013;16(4):325–32.
- 82. Hunter MS, Smith M. Managing hot flushes and night sweats: a cognitive behavioural self-help guide to the menopause. New York: Routledge; 2014.
- 83. Hunter MS, Smith M. Managing hot flushes with group cognitive behaviour therapy: an evidence based treatment manual for health professionals. New York: Routledge; 2015.
- 84. Carmody J. Evolving conceptions of mindfulness in clinical settings. J Cogn Psychother. 2009;23(3):270–80.
- 85. Carmody JF, Crawford S, Salmoirago-Blotcher E, Leung K, Churchill L, Olendzki N. Mindfulness training for coping with hot flashes: results of a randomized trial. Menopause. 2011;18(6):611–20.

86. Garcia MC, Pompéia S, Hachul H, Kozasa EH, de Souza AA, Tufik S, Mello LE. Is mindfulness associated with insomnia after menopause? Menopause. 2014;21:301–5.

87. Catalbiano ML, Holzheimer M. Dispositional factors, coping and adaptation during menopause. Climacteric. 1999;2:21–8.

# Part V

# **Gender in Psychiatric Disorders**



# Affective Disorders and Gender Differences

26

Patricia Pérez Martinez de Arrieta and Jon Gaviña Arenaza

#### Abstract

Women are typically from two to three times more likely to develop depressive disorders than men are. The gender difference emerges earlier than previously thought, at the age of 12. It peaks in adolescence and declines in adulthood, remaining stable until senescence, when a small peak occurs.

Depression is a multifactorial disorder so, its etiology cannot be dissociated from the socioeconomic and cultural environment, having a great importance on the current gender construct. Despite the fact that genetic vulnerability and sex hormones have been considered the main causal factors of this difference, nowadays some other factors are taken into account, such as emotion regulation strategies (women are more likely to ruminate, while men tend to suppress or avoid their emotions) and changes in the classical personality features attributed to men and women ("depressive temperament") and in the sex role (chronic stresses associated with traditional female roles lead to a higher prevalence of depression).

Attending to the way of presentation, depressed women are more likely to exhibit "atypical" symptoms and more anxiety and somatization.

Great differences have not been found regarding to the response to pharmacological treatment according to gender. In the case of psychotherapy, cognitive-behavioral treatment has been most empirically demonstrated to be effective on both sexes.

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#### 26.1 Introduction

Affective disorders have plagued human since the earliest documentation. In this chapter, we will mostly focus on major depressive disorder (MDD) according to the *Diagnostic and Statistical Manual of Mental Disorders, fifth edition* [1]; we will mention some aspects about persistent depressive disorder (dysthymia) and some others about depressive sub-syndromic symptoms. Depressive disorders are characterized by lifelong vulnerability to episodes of disease, involving depressed mood or loss of interest and pleasure in activities, experienced as a feeling of sadness, irritability, dejection, despair, loss of interest or pleasure, with neurovegetative or biological signs, like impairment in sleep, appetite, energy level, libido, and psychomotor activity, and marked impairment in concentration with increased distractibility and the presence of guilty preoccupation. All these symptoms result in a change from previous functioning of the person [2].

Depression affects the environment of the person, the time spent in leisure activities, the economy, and the social relationships, and it has been reported that the unipolar major depression is the main source of disease-related disability for females all over the world [3].

Although depression is a multifactorial disorder, its etiology cannot be dissociated from the social contexts that frame our lives. The last three decades have been characterized by a redefinition of gender identities in many societies, but although with different nuances, particular manifestations and more social tolerance to them, the gender gap in depression onset has not been eliminated.

Depression has become a modern and globalized disease, largely due to unfavorable living conditions of the contemporary world. Current stress factors such as job insecurity, professional competence, poverty, and migration are problems that affect women more than men, and they are part of the phenomenon of globalization, which impacts not only on the economy and social development but also in the cultural sphere and in the definition and redefinition of identities and gender roles.

We live in a world of social changes and in a historical transition period marked by advances in education and technology, accompanied by the massive incorporation of women into the labor market and economic changes and periods of crisis that promote instability and job insecurity. These elements affect other complex phenomena such as gender relations and promote new cultural constructions about what it means to be male or female in contemporary societies; the gender perspective is a useful analytical tool in explaining sex-differentiated distribution of psychopathology, with special interest in depression. In fact, in recent years, the study of gender diversity has dismembered in a global movement of awareness, acceptance, and struggle for women's rights.

The concept of gender role on the health sciences does not appear until 1955, proposed by Money [4] to refer to men and women attributed social behavior. Gender is a social construct that refers to cultural characteristics assigned to each sex. It is the system of beliefs, attitudes, values, personality characteristics, and cognitions, culturally determined, about men and women. These are the values which are considered more desirable for one sex than another within a given culture and which are

assimilated in socialization process by individuals belonging to this cultural context. Thus, the gender identity is defined as the private experience of gender role and gender role as the public expression of gender identity. Gender identity is not a completed sociocultural construction; it is built dynamically in the course of time and according to the type of relationships that people establish with themselves, with others, and with culture. Therefore, the concept of femininity is defined in terms, which go far beyond biology and anatomy, taking into account the diversity of environmental and psychological factors that influence the development of the person.

Throughout this chapter we will discuss in detail the differential gender issues regarding the epidemiology of depression, the risk factors that can produce it, the clinical characteristics and comorbidity, and of course, the commonly used therapeutic approach. We will also try to analyze in depth these differences, in order to shed some light on the reasons behind them.

#### 26.2 Epidemiology

Depression is a global health priority. According to the World Organization 2017, depression accounts for 10% of the total nonfatal diseases worldwide [5]. Each year 6% of adults will experience an episode of depression, and over the course of a person's lifetime more than 15% of the population will have an episode. The global 12-month prevalence of MDD is 5.8% in females and 3.5% in males [6]. Depression is the leading cause of suicide and currently the fourth highest disease burden on society in terms of its treatment costs, its effect on families and carers, and its impact on productivity in the workplace. Depression can be disabling and distressing and, for many people, can become a chronic disorder, especially if it is inadequately treated [3].

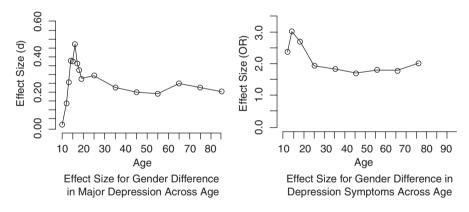
There is an enormous variation in the prevalence of major depression, with lifetime ranging prevalence estimated between 6% and 25% for women and 5–12% for men, with the point prevalence of major depressive disorder (MDD) for adults in community samples from 5% to 9% for women and from 2% to 3% for men [6]. A substantial number of epidemiological studies have also examined gender differences in chronic minor depression or dysthymia. These studies have consistently found female/male prevalence ratios around 2:1. Dysthymia has a lifetime prevalence of 4.6%, but a prevalence of 29.4% can be found in individuals with a lifetime depressive disorder [7, 8].

In the 1970s Myrna Weissman was the first who noticed the gender difference in depression, observing that females suffered depression twice as much as males among adults [9]. Following this landmark, many articles have studied this differences finding similar results, that is to say, women have higher rates of major depression compared to men with 1.2–2.7 ratios, depending on cross-national variations [10]. Consequently, it is important to understand nation-level variables such as economic development or gender equity that may account for this variability, as we will develop later.

According to a recent meta-analysis [11], the effect size for the gender difference in MDD is OR (OR) = 1.95. In summary, in addition to higher rates of affective disorders that meet full diagnostic criteria, subclinical depression symptoms are

also more common in women [12]. It is significant to know the magnitude of this difference in subthreshold levels of symptoms because they also carry significant impairment [13] and a future risk of developing major depression or committing suicide [14].

If we take into account a developmental perspective, age predicts variability in effect size. Among children of preschool age, major depression is rare, around 0.3% in the general population and 0.9% among children in psychiatric consultation. It is remarkably the fact that the female preponderance emerges at the age of 12 (OR = 2.37) and peaks in adolescence (OR = 3.02) for ages from 13 to 15 in MDD and d = 0.47 for age 16 in depression symptoms) but then declines and remains stable in adulthood [11]. It must be known that the youngest age group available is 12 years old, which makes imposible to determine the apparition of this gender difference from childhood to adolescence. In the case of dysthymia, considered as a risk factor for the development of a major depressive episode, it is more common than major depression in children, with rates of around 2.5%, and less common than major depression in adolescents, 3.3%, being also more prevalent among female persons [15]. During the transition to menopause, the risk of relapse of major depression is 4–6 times higher for women who have a history of major depression and 2–3 times for those women without a history of major depression during the fertile years [16]. Later, there is another minor peak in ages from 75 reporting an OR = 1.4-2.2 [11].



# 26.3 Hypothesis of the Emergence and Maintenance of the Gender Difference

There is now a consensus that the preponderance of MDD in women underlays in a multifactorial etiology. It has been proposed the ABC model for explaining the emergence of gender difference in depression in adolescence. According to this model, affective (*emotional reactivity*), biological (genetic vulnerability, *pubertal hormones*, *and pubertal timing and development*), and cognitive (*cognitive style*, objectified body consciousness, rumination) factors confer vulnerability to depression. These factors interact with *negative life events or stress*, leading to significantly more girls than boys having depression in adolescence [17].

#### 26.3.1 Affective Factors: Emotional Reactivity

Emotion regulation strategies are a range of activities that allow an individual to monitor, evaluate, and modify the nature and course of an emotional response, in order to pursue his or her goals and appropriately respond to environmental demands. The inability to use these strategies to downregulate negative emotions makes them more uncontrollable, severe, and chronic and can lead to depression [18, 19]. The gender differences in emotion regulation strategies may contribute to the gender differences in psychopathology [20]. Specifically, girls and adult women demonstrate more internal coping styles and rumination and experience more sensitivity to rejection, criticism, and separation [21–23].

Apart from this, much about gender relations in adolescents has changed. For example, the emergence of media such as Facebook has created a different social environment for today's adolescents, as well as new ways to engage in peer harassment [24]. Media viewed by adolescents has become increasingly sexualized and conveys a sexual script for girls that they can attain status by sexually objectifying themselves [25, 26]. Forces like these might change patterns of depression for adolescent girls and boys. Indeed, a recent review concluded that internalizing problems for girls increased from the late twentieth century to the twenty-first century [27].

#### 26.3.2 Biological Factors

#### 26.3.2.1 Genetics and Heredity

Depression is an illness that aggregates in families, but the influence of genetic factors, however, may not be equal for men and women. As part of the National Institute of Mental Health Collaborative Program on the Psychobiology of Depression, subjects with depression and their first-degree relatives were studied, and the "transmissibility" of depression, which encompasses both environmental and genetic factors that are passed from parents to offspring, was examined. Women were found to have significantly greater transmissibility of depression than men. However, twin studies [28, 29] did not find any sex differences in the magnitude of genetic and environmental contributions to depression. In conclusion, the results document that in women, genetic factors play a substantial, but not overwhelming, role in depression; the tendency for depression to aggregate in families results largely from shared genetic and environmental factors [30].

Genetic factors, however, do not seem to contribute to the increased risk to females by a direct mechanism. Instead, genetic factors may indirectly increase vulnerability to depression in women through other mechanisms, such as how the different sexes handle stress. In fact, higher depression rates have been reported in adolescent girls, suggesting that the genetic predisposition to depression and to stressful events may be turned on at puberty in females [31, 32].

Some studies have been set out to answer why stressful experiences lead to depression in some people but not in others. They reported that a functional polymorphism in the promoter region of the serotonin transporter gene was found to

moderate the influence of stressful life events on depression. This important epidemiological study provides evidence of a gene-by-environment interaction, in which an individual's response to environmental stress is moderated by his or her genetic makeup [33–35].

# 26.3.2.2 Pubertal Timing, Sexual Hormones, and Development in Adolescence

The highest risk of depression was evident in girls with a family history of depression, suggesting that the onset of puberty may trigger a genetic vulnerability in females [36].

As we have mentioned before, the gender gap emerges at the age of 12 [11] and seems to be related to the time of *puberty* than age itself. That is to say, that the pubertal status predicts the expected sex ratio better than the age, but only after the transition to middle puberty (Tanner stage II and above), when adolescent girls are at a greater risk for depression than adolescent boys because before Tanner stage III, adolescent boys are the ones who have a higher rate of depression [37]. Puberty not only involves various hormonal changes but also implies important changes in terms of cognition and stressful experiences that significantly influence the onset of depression [38].

*Sex hormones* appear to play a key role in both aspects of cognitive functioning, as in behavior and mood. Therefore, the appearance of a mood disorder would be related to their decrease, as in premenstrual dysphoric disorder and in postpartum depression. Consequently, they could not explain the increase in mood disorders at the beginning of the childbearing age of women, when the hormonal explosion occurs [37, 38].

Because of this reason, it was analyzed the emergence of the gender difference in depression during puberty following cohorts of prepubescent boys and girls through puberty using direct measures of sex hormones from blood samples. These studies found that the increase in depression among girls relative to boys occurs sharply at midpuberty and that change in body morphology is more important than increase in age in predicting the gender difference in depression. A subsequent report showed that statistical control for changes in sex hormones eliminated the effects of body morphology. This led to argue that the effect is due to biology rather than to societal reactions to physical maturation, but this conclusion might be premature. It was also related that girls who matured physically early experienced more psychological distress than their on-time or late-maturing age-mates. This elevated distress is exacerbated by having mixed-sex friends rather than same-sex friends, and these results suggest that environmental stresses related to sex roles potentiate the effects of sex hormones. Several investigations have been conducted about why adolescent girls are more prone to depression than men, finding risk factors, in addition to hormonal differences, such as personality traits in preadolescence (excessive emotionality, trend to self-incrimination), which may favor the development of depression in response to typical biological and social experiences in adolescence [38].

Sex hormones may also have an indirect role through the *modulation of neu*rotransmitters. Estrogens reduce the activity of monoamine oxidase (MAO), an effect that is associated with a decrease in depressive symptoms [39]. They also produce changes in serotonergic and noradrenergic system by increasing their availability in synapses, as well as increasing the number of 5-HT<sub>2</sub> receptors [40]. In contrast, progesterone appears to increase the activity of MAO and catechol-*O*-methyltransferase (COMT) [41]. Estrogen and progesterone also seem to have a direct effect on serotonergic function: estrogen increases serotonin reuptake and influences the circadian variation, while progesterone causes an increase in its metabolism [42].

The *postmenopausal estrogen depletion* has been associated with a greater vulnerability to MDD, as well as dysthymia. Besides, the examination of depression in the elderly shows similar hypothalamic–pituitary–adrenal axis abnormalities as seen in younger adults with serious depressive disorders and significantly different from non-depressed elderly controls [43]. Women experience a decrease (regardless of age) in immediate and late verbal memory during the transition to menopause, suggesting that changes in women's reproductive function affect both cognition and mood. Apart from this, exposure to two or more adverse events in childhood (before age 18) increases the risk of onset of major depression in perimenopause by 2 times and recurrence of major depression by 5 times [44, 45]. It is known that childhood adversity is a known risk factor for affective disorders throughout life, but for some women, exposed the risk of major depression is not triggered until they experience the hormonal fluctuations of perimenopause [16].

The only other case where rate of MDD related to hormones increases substantially is during the *postpartum period* [46]. Postpartum confers a higher risk of depression compared to other periods in women's lives, but no corresponding data have been reported in men (see postpartum depression chapter) [47–49].

Regarding to *androgens*, if we focus on the exposure to them during prenatal period, it seems to have a different behavioral meaning according to gender. Lower levels of testosterone in the amniotic fluid in the middle of pregnancy (weeks 13–20) were associated with a negative response bias to affective tasks and a decreased response to gratifying stimuli tasks during a functional magnetic resonance imaging (fMRI) in male between 8 and 11 years of age. The negative response to affective tasks is a common finding in individuals with major depressive disorder, so higher levels of androgen exposure in the uterus in men can contribute to relative protection against major depression in the future [50–53].

*Maternal depression* is another factor that can affect girls' development by rising cortisol levels during pregnancy and lactation which are associated with more fearful and irritable behavior in female infants and children compared to male [54–56].

# 26.3.3 Cognitive Factors and Personality Traits

Rumination of negative thoughts, suppression of emotional expression and of unwanted thoughts, and avoidance of emotions are three processes that predict the diagnosis of major depression [57]. Rumination theory suggests that women are more likely than men to do well on problems and, because of this, to let transient

symptoms of dysphoria grow into clinically significant episodes of depression. That is to say that more rumination in women compared to men accounts for greater depression [58, 59]. In the case of women, seeking social support is one of their most important protective factors from depression, but co-rumination is a potential risk: discussing the same problem repeatedly, mutual encouragement of discussing problems, speculating about problems, and focusing on negative feelings. This is the reason why social support in women is not strongly related to improvements in mood in women [60].

The *cognitive styles* of autonomy and sociotropy play a role in developing depression. As a result of socialization, women are more likely to develop sociotropic structures, while men are more likely to develop autonomous structures. Apart from this, women usually are presented with higher scores for harm avoidance than men.

A number of personality features have been proposed as vulnerability factors for the development and maintenance of depression. These include neuroticism, introversion, interpersonal dependency, self-criticism, and perfectionism. Clinically depressed women are significantly more likely to have a "depressive temperament," which includes features of self-criticism and preoccupation with inadequacy and failure. They also report higher levels for conscientiousness and for sociotropy. Thus, men and women have a similar frequency of brief episodes of sadness, but women, because of their tendency to rumination, internalization of feelings, and amplification of this mood, allow these episodes to crystallize more often in a major depressive episode, that is to say, female sex, by their personality features would be more likely to suffer depression after a stressful life event [27, 61]. Empirical studies link low self-esteem and dependency traits of women with depression [62].

Some gender differences that promote reproductive success also increase vulnerability of women to develop mood disorders, for example, adaptive behavioral differences in terms of child-rearing in females a superior social cognition and capacity for attunement with others, important factors for cognitive and social development, but it is also known that at the same time women experience more sensitivity to rejection, criticism, and separation, key features of the development of depressive disorders [20, 22, 63, 64].

#### 26.3.3.1 Life Events and Stress Effects: Sociological Explanations

A number of consistently significant risk factors have been found, including family history, childhood adversity, various aspects of personality, social isolation, and exposure to stressful life experiences [20]. Stressors involving loss are strongly related to risk of depression, stressors involving danger are related to risk of anxiety, and stressors involving a combination of danger and loss are related to risk of mixed anxiety-depression [22].

Sociological approaches emphasize the role of poverty, violence, and gender inequality as factors contributing to the gender difference in depression.

#### 26.3.3.2 Poverty

Evidence suggests a relationship between financial hardship or poverty and depression in both sexes [65], and because of the feminization of poverty [66], gender

differences should be bigger. Many authors have reported larger gender differences in depression in wealthier countries (OR = 2.00) compared to low- to middle-income countries (OR = 1.82). But nevertheless, no differences were found if only subsyndromic depressive symptoms were taken into account [11].

#### 26.3.3.3 Violence

In recent years, the attention to domestic violence has been a primary focus of attention, concerning not only the justice but also the political world and the mental health services because of the psychological consequences that this implies. Violence is also related to depression in both males and females. To the extent that women report higher rates of violent victimization, this may contribute to the gender difference in depression [67, 68].

Patriarchy has been considered as a generating structure of inequality and inequity, based on a supposed father-male power legitimized as an actor that does violence to the other dependent members of it; there are also important primary socialization patterns that involve children in the reproduction of gender inequalities and the internalization of violent actions as a form of conflict resolution [69]. It seems that the main factors that predispose men to violence against women are the socialization in the gender role, distorted patterns, conflicts with gender roles, and mechanisms of defense and strategies for self-protective defense.

If we focus on the acute psychological injuries of domestic abuse, we can find a first reaction of self-protection and self-survival instinct, with frequent occurrence of reactions of shock, denial, confusion, sadness, dizziness, and fear. In response to this potential danger, some battered women may develop anxiety, post-traumatic stress disorder, dissociative disorders, eating disorders, substance abuse, persistent personality alterations, and depression that can remain along the time after leaving the relationship, even with a higher prevalence [70, 71]. Furthermore, there is a subgroup with higher incidence of depression after the abandon of the violent relationship in which women tend to blame themselves for the experienced abuse [72].

#### 26.3.3.4 Gender Inequality and Sex-Role Theories

One of the most controversial sociological explanations for the higher prevalence of depression in women is based on the social position of women as a risk factor for depression.

Lastly, *gender inequality* is linked to discrimination against women, which may contribute to the gender difference [69].

According to Eagly and Wood's social-structural theory [73], a society's division of labor by gender drives all other psychological gender differences. These gender differences result from individuals' adaptations to the particular restrictions on or opportunities for their gender in their society. *Sex-role theories* suggest that the chronic stresses associated with traditional female roles lead to a higher prevalence of depression among women than men [74–76]. Even though the theory predicts that larger gender differences should be observed in nations with more gender inequality, there is actually a controversy about it. In fact, a recent meta-analysis has found smaller gender differences in nations with more gender inequality in

depression. In order to analyze the impact of gender inequity, these indicators have been taken: contraceptive prevalence, executive positions, literacy ratio, intimate partner violence against women (lifetime), and sexism ideals. Only contraceptive prevalence and literacy ratio were found as indicators predicting and increase in the gender gap in depression [11].

While it is clear that in recent decades it has been a trend toward flexibility in gender roles and to equal opportunities for people regardless of their sex, it is also remarkable that men and women are still socialized with different rules and expectations regarding the expression of feelings, the pressure to success in studies or work, participation in domestic tasks, commitment to the care and concern for relationships, and caring for others which leads to meaningful psychological consequences.

The traditional female role is primarily characterized by being focused in the private circle and the interest and care of intimate relationships. Femininity as a personality characteristic includes not only aspects such as kindness, loyalty, sensitivity to the needs of others, the ability of understanding, and tenderness but also dependency, impressionability, lack of assertiveness, tendency to emotional expression, etc. Socially, the female role has been constrained to the private sphere, particularly in the care of family members and the care of the housework [17].

According to the sex-role explanation, women are more depressed than men because of the higher levels of stress and lower levels of fulfillment in female versus male sex roles. The specification by marital status, according to this account, is due to the fact that married women are more strongly exposed to traditional sex-role experiences than single women. This could be due to the presence of a greater number of stressors (family demands, overload of both domestic and non-domestic work, negative marital experiences, etc.). A non-equitable distribution of social and family responsibilities between men and women contributes to create additional sources of stress for women who are already subject to the performance of multiple roles [77]. Some studies show that job stress accompanied by an overload of activities in the home increases the rates of depression among women [78]. However, return to work has been a major achievement for a large number of women in terms of their personal and professional fulfillment and financial independence. Literature has reported that breaking social isolation and creating new relationships improves physical and emotional well-being of women working outside the home compared to those who are housewives [79].

If we look at the role that work plays, we can see that the labor authority is beneficial because the global incidence of depression is reduced. However, when researching the effects of the labor authority on gender, we can find that this protector effect only occurs in men, while in women it comes about the other way round. These results can be because of the greater interpersonal stress suffered by women in positions of authority, that is to say, stress is more pronounced in women because their authority is not perceived as legitimate, women are more critically evaluated in positions of authority, gender discrimination is more open and subtle and may increase social exclusion, and they experience more harassment because their presence in positions of authority is perceived as threatening and causes more hostile responses [80].

In the case of depression associated with occupational injuries, it has been observed that while men are more vulnerable to suffer from depression, female workers with depression are more vulnerable to get injured at the workplace as compared to non-depressed female workers. Moreover, use of antidepressant medications is also associated to significantly more risks for occupational injury among female workers. This could be partly explained by different pharmacokinetics and different occupational risk factors between men and women, including the fact that women often occupy part-time jobs and potentially face different levels of exposure to danger and stress in their workplaces [81–85].

Nowadays, ancient women's role is changing: women's and men's work and family roles are much more equalized than before. Further, major life transitions that formerly occurred at standard ages and could be major sources of stress, no longer occur at such regular ages. Sociologists have called this phenomenon the "de-standardization of the life course" [22]. Today, the ages of major events such as marriage, childbirth, and divorce do not occur at the same time for all or most individuals. The result of these two factors is that women's role is less stressful and all those stressors attached to these transitions are spread out more evenly across adulthood. This may serve to level out stressors and buffers to stress across adulthood, making the gender gap less showy than in adolescence but more stable.

Some critical voices try to explain the predominance in diagnosis of depression in women from a gender perspective. They assume that the feminine characteristics considered (perceived through a patriarchal gender norms and assumptions) are related to concepts of depression from the beginning. From their point of view, the category of the disease was approached with notions of femininity and gender, and depression was codified from the feminine. Symptoms listed in the DSM came from a group of women almost exclusively (gender bias) but without any reference to sex or gender, so the predominance of women in the statistics on depression served to confirm that women were ("objectively") more depressed than men [86–88].

In order to avoid this gender bias in diagnosis of depression, they propose to truly consider the real differences between men and women's psychology and to recognize that cultural ideologies about intrinsic psychological sex differences are produced by extrinsic gender orders [89].

#### 26.3.3.5 Others

Of note both *pregnancy and lactation* suppress hypothalamic–pituitary–adrenal axis and autonomic responses to stress. This suppression state maybe has been the set point for stress responsivity in women. The relatively recent development of women spending much of their adult life neither pregnant nor lactating may contribute to the increased rates of anxiety and depression in women, particularly in the context of repeated menstrual cycling [90]. Although pregnancy is the period with the highest risk of relapse, it seems to protect against more severe forms of depression that result in suicide or require hospitalization [91–93].

Women who have major depression during pregnancy are more likely to have a history of depression and a history of typical risk factors of depression, including abuse and low social support [94].

A lack of *emotional support in the family* on women can be considered as a risk factor for developing depression. It is often assumed the relationship between the welfare of the female partner and a parallel distribution of resources, burdens, and privileges. If this fact does not exist, women are at a higher risk of suffering depression [67]. From a systemic point of view, hypotheses that interpret clinical depression of one spouse as a reflection of imbalances or power struggles are formulated. Depression is considered to be an expression of helplessness or weakness and, simultaneously, a protest or rebellion, that is to say, an indirect way of questioning this asymmetry and gaining power over the spouse.

Regarding the limited research on *ethnicity*, no association was found between ethnicity and gender difference in depression [95].

# 26.4 Clinical Differences in Symptomatology

Although it is widely held that there are no significant differences between men and women in terms of the symptoms that they experience during depressive episodes, the simple observation of our patients suggests that there are different characteristics in the clinical manifestations of this condition in women, which underlies biological and cultural differences rather than the classic male-female sexual dimorphism. Recent research suggests that subtle differences in symptom profile may exist and may point to fundamental gender differences in the pathophysiology of depressive states.

A number of studies have found that depressed females tend to exhibit more "atypical" depressive symptoms, with a frequency more than twice higher comparing to men (excessive fatigue, appetite increase, weight gain, hypersomnia, interpersonal sensitivity, and gastrointestinal symptoms) and more anxiety and somatization symptoms compared to men. Besides those mentioned above, we can find anger and psychomotor retardation. Atypical depression is also associated with younger age of onset and more comorbidity (social anxiety and specific phobia and more severity, disability, and suicide attempts). Although women make more suicide attempts, men are more likely to make a lethal attempt [36, 96, 97].

Higher levels of atypical symptoms in females could reflect a pathophysiological difference between male and female depression. For example, it has been suggested that this atypical depression is associated with under activity of the hypothalamic–pituitary–adrenal (HPA) axis [98]. Given that female gonadal steroids are known to modulate factors such as corticotrophin-releasing hormone (CRH) secretion, sero-tonergic activity [99], and gamma-aminobutyric acid (GABA) transmission [100], it is possible that the clinical syndrome of atypical depressive symptoms is at least in part a consequence of the action of female hormones on the HPA axis [101]. A finding like this may have important implications for the treatment of depression.

Women with clinical depression may tend to experience a greater severity of depressive symptoms, and their depression is often associated with a greater functional impairment [102]. Women with subthreshold depression have also been reported to endorse a greater overall number of depressive symptoms in comparison

to men. Gender differences are especially prominent in the self-reported severity of depressive symptoms as compared to interview-based measures of depression severity, which implies that women express more its psychic distress.

The duration of the depressive episodes showed a trend toward being lengthier in females [103].

More than a half of women with major depression experience greater severity of depressive symptoms in the premenstrual phase of the cycle, even when the antidepressant medication has been effective during the rest of the cycle. Premenstrual exacerbation of depression has been linked to more rapid relapses [97, 104].

## 26.4.1 Chronicity and Recurrence

Considering the number of episodes presented, women are two times more likely to develop a single-episode unipolar depression, and even they are four times more likely to develop recurrent unipolar depression in community samples. But according to research, results on gender differences in the duration or recurrence of depression are somewhat inconsistent. Some evidence exists that women have a more chronic course of depression than men. However, methodological studies show fairly convincingly that this is due to a differential recall bias, for instance. The environmental experiences that are associated with chronicity and recurrence are different for women and men; for example, financial pressures are more depressogenic for men than women, while family problems are more depressogenic for women than men.

In many studies, women compared to men with a history of depression are more likely to develop subsequent depressive episodes [105–107], not only in childhood or adolescence but also in adulthood [108].

However, some other studies failed to find gender differences in recurrence of depression among adolescents [108] or adults [109]. However, because the participants in studies among adolescents are still young, it is possible that greater female recurrence may emerge at a later age. Similarly, in another study, that gender difference in recurrence in major depression in adults was interpreted as a greater number of first onsets of depression in women compared to men but without gender differences in the duration or recurrence of depression [110].

In both genders, an earlier onset of depression was significantly correlated with more number of depressive episodes. Interestingly, lower onset age predicts a worse course of depression in females, but not in males. The finding that an earlier age of onset increased the chances of experiencing depressive episodes can be interpreted as supporting previous findings that an early onset MDD is more severe than those with a later onset [109]. The finding that an earlier onset is associated with a worse course in females only could have important theoretical implications. It seemed to suggest that depressive episodes tend to leave "scars" or residual effects [111], on an individual, which may serve to increase the likelihood of future depressive episodes. This effect is more likely to be experienced by females because of their greater tendency to ruminate in response to their depressed moods [112] which

activate and strengthen associative networks of negative cognitions [113], the greater genetic effects on MDD in females [114, 115], and their interpersonal orientation that overvalue relationships as sources of self-worth [116].

Another line of argument may be biologically oriented. Depression may increase biological reactivity to stress by sensitizing the neurotransmitter and neuroendocrine systems linked to depression [117]. This in turn lowers the threshold for new depressive episodes, such that even mild stressors can trigger a new episode. It could be further argued that females are more reactive to stress than males. Support of this hypothesis comes from a recent study [114] which showed that adolescent girls compared to boys were also more reactive to both total and interpersonal stress and, consequently, were more likely to become depressed [110].

# 26.5 Comorbidity

Women are shown to have higher rates of both threshold and subthreshold comorbid *anxiety*. They are also more likely than men to present a comorbid anxiety disorder, bulimia, or a somatoform disorder and report more suicide attempts in the past, and men are more likely to report comorbid alcohol and substance abuse [118].

As mention before, the presence of a comorbid disorder prolongs the duration of MDD episodes in males predominantly. The exact reason for this gender difference is unclear; however, it could be that among males, major depression is secondary to other conditions such as substance use disorders which males are more prone to have [69, 119, 120]. This condition in males is also associated with more severe depression and health problems [121].

# 26.6 Gender Differences in Treatment of Depression

# 26.6.1 Pharmacological Treatment

There are not too many studies that accurately reflect gender differences in aspects related to treatment, but some studies show that enzymatic metabolism differences of some antidepressants may have different clinical efficacy in female or male [122].

Gender differences in pharmacokinetics and pharmacodynamics aspects of antidepressants suggest that men and women may differ in their response to treatment, and these effects may be particularly marked in women of childbearing age given the influence of estrogen and other sexual hormones [84, 123–126].

Antidepressants have a greater affinity for adipose tissue because they are lipophilic, which results in a greater distribution in women due to the greater adipose tissue component of these. At the same time in women, there is a lower gastric acid secretion and a slower motility than in men helping to a greater distribution.

The association between the use of antidepressants and the change in body mass index has been examined, and it has been found that weight gain was observed only in women (not men) who had received treatment for at least 90 days with SSRI [127, 128].

The influence of sex on serum levels of venlafaxine and its metabolite *O*-desmethylvenlafaxine has been determined and found that women had levels of venlafaxine and *O*-desmethylvenlafaxine approximately 30% higher than men, but despite this finding, the clinical report does not find sex difference between males and females treated with venlafaxine [125, 129].

P-glycoprotein (P-gp) is a drug transporter which plays a critical role in the absorption and distribution of antidepressants. It has been reported that a gender difference exists in the expression of P-gp such that women express only one-third to one-half of protein compared to men [130], which implies an increase of concentration of drugs and therefore a higher toxicity in women. With regard to plasma concentrations, there seems to be some agreement that they are higher in women than in men; however this hypothesis is not clear in all the studies. It is very important to pay attention to the dose of antidepressants in women to prevent adverse effects as they need lower doses due to their physiological characteristics as they reach higher plasma concentrations.

The most important CYPs in antidepressant metabolism are CYP2D6, CYP2C, CYP3A, and CYP1A [130], and it is suggested that there is a differential expression of CYPs in males and females [131].

Pharmacological substrates of CYP3A4 (major metabolizer of sertraline, citalopram, fluoxetine, and escitalopram and of amitriptyline, imipramine, and clomipramine) often clear faster in women than in men caused by increased CYP3A4 enzymatic activity in females, but cytochrome P450 2D6 (CYP2D6) (major metabolizer of xenobiotics, desipramine, and mirtazapine) often clear faster in males than females.

Cytochrome P450 1A2 (CYP1A2) substrates have been found to clear faster in males than females and metabolize escitalopram to desmethylcitalopram and didesmethylcitalopram, and cytochrome P450 2B6 (CYP2B6) genotype and phenotype was only observed in women, and it is important for the metabolism of bupropion to its active metabolite hydroxybupropion.

Similarly, CYP2C19 activity has also been shown to be reduced in women, and it has been also suggested that this may be a direct result of inhibition by estrogen [132] and oral contraceptives [125, 133–137].

The effects of gender on plasma levels of SSRIs are, however, less clear. Plasma levels of sertraline have been shown to be higher in older women [138], which is consistent with the inhibitory effects of estrogen on both CYP1A2 and CYP2C19 activity. Similarly, plasma levels of the SSRIs citalopram and paroxetine may also be higher in women than men [139, 140], although inconsistent findings have been reported.

Genetic variation also affects pharmacokinetics and pharmacodynamics of antidepressants [141], and a number of recent studies suggest that the effects of genetic polymorphisms may differ in men and women. The gene encoding the serotonin transporter (SLC6A4) affects the pharmacodynamics of SSRIs, and three of its polymorphisms have been associated with the response to antidepressants. The short allelic variant of 5-HTTLPR was associated with a poor response and nonremission to antidepressants [142] after considering the ethnic origin of the study population [143], and the "S" allele of 5-HTTLPR was associated with a poorer response to escitalopram in men but not in women [144].

It has been reported too that in postmenopausal women, high levels of LH were associated with a poor response to antidepressants, and they also showed that HRT, which decreased LH, FSH, and increased estradiol, improved response to antidepressants in postmenopausal women [145]; a similar study suggested that both postmenopausal status and high levels of FSH were associated with a poorer response to SSRIs [146, 147], and others show increased efficacy of SSRIs in peri- and postmenopausal women when combined with HRT or estrogen replacement therapy (ERT) [148, 149].

Estrogens are involved in the pathogenesis of depression and in the effectiveness of antidepressants, facilitate the formation of dendritic spines, and influence the neurotrophic factors, and it has also been shown that progesterone decreases gastric emptying and thereby modifies the pharmacokinetics of antidepressants. Premenopausal females showed a better response than males to the serotonergic antidepressants, which implies that female hormones may improve their efficacy [125, 150, 151].

Postmenopausal women under treatment with estrogen and SSRIs showed better response compared with postmenopausal depressed women who received only SSRIs, and postmenopausal women have a poorer response to antidepressants than premenopausal women, and this lower response was associated with elevated levels of FSH [152].

There are also naturalistic studies of antidepressants in menopause that support the hypothesis that reproductive hormones may improve their effectiveness because depressed females in menopause respond worse to SSRI treatment, while premenopausal women showed a better response.

Estrogen treatment for perimenopausal women (without treatment with antidepressants) has proved to be effective in the treatment of depression, also leave the replacement therapy of estrogen in women over the age of 40 years with a history of recurrent episodes of depression showed the emergence of new ones. LH levels may also predict improved response to antidepressant therapy in postmenopausal females because lower LH levels suggest higher baseline serotonin levels for antidepressants to work upon [153].

In young females the menstrual cycle can also modulate the effectiveness of antidepressants due to altered gastric contractions and fluid retention lowering antidepressants plasma levels [125, 154–156].

To end with this general part, we must say that few significant studies exist regarding the differences in adverse effects. The findings suggest that women are more likely to experience adverse events and are related to evidence from pharmacokinetic studies suggesting that women have higher levels of these drugs in plasma than men.

With regard to sexual side effects, studies have focused especially on men, although women may also be affected. More studies should be done to analyze the significant differences between men and women.

Suicidal ideation is considered not only a symptom of depression but also a common side effect in antidepressant treatment as a result of an exacerbation of irritable symptoms, which are seen more frequently in men than in female with depression.

Focusing on studies, recent studies determine that SSRIs are superior in effectiveness in females compared with other antidepressants [157]. The greater efficacy of SSRIs in reproductive-aged women may be due to SSRI induction of 3-alpha reductase, because this enzyme produces the anxiolytic metabolites allopregnanolone (3-alpha, 5-alpha metabolite of progesterone) and the metabolites of androstanedione and dihydrotestosterone that interfere in the improvement of depressive symptoms [125, 158, 159].

In case of chronic depression, recent studies have found that females respond more favorably to sertraline and to fluoxetine than men [124]. Other recent studies of outpatients with major depressive disorder who receive desvenlafaxine or placebo for 8 weeks found that desvenlafaxine generally improved depressive symptoms regardless of sex, and in other analysis with adult outpatients with recurrent MDD with venlafaxine extended release or fluoxetine, it was not observed any sex difference in the response [125, 129, 160].

In a more plausible analysis comparing cognitive behavior therapy (CBT) with pharmacotherapy and comparing either CBT or pharmacotherapy with placebo, no sex-modulating effects on treatment were detected regardless of therapeutic intervention [161].

Other reports have suggested that anxious depression is associated with poorer response to all antidepressants [162, 163] or to treatment resistance. Some suggested that those with anxious depression were less likely to respond to citalopram and more likely to report adverse events [154], and it has been suggested that SNRIs are more effective. A recent report suggested that the SSRI escitalopram may be more efficacious than the TCA nortriptyline in relieving the anxious symptoms of depression, and in another study, it was observed that in patients with melancholic depression treated with clomipramine, citalopram, paroxetine, or moclobemide, men and women respond equally to treatment.

Another recent study combining data from 15 randomized trials of 6 antidepressants suggested that women responded better to SSRIs than SNRIs such as venlafaxine [164].

# 26.6.2 Psychotherapy in Depression According to Gender

Women use psychotherapy to resolve their psychological conflicts rather more often than men. In addition, they ask for help and are committed to treatment with far less difficulty than men.

Psychotherapy and the idea of femininity have been historically linked. Thus, Freud described the psychology of women in terms of the observed shortcomings by comparing it with male psychology that was taken as a model, referring to the narcissistic inferiority or "penis envy" [165]. Soon, however, new concepts were

promoted because these ideas did not really reflect the experiences of women, shifting the focus to the interpersonal and maternal determinants of mental development [4]. Already in the 1980s, the debate about gender identity that approaches psychoanalytic teaching to biology and sociology begins.

Chodorow describes how the basic feminine sense of self is seen connected to the world, whereas the basic sense of self in man is conceived apart from the world. These different relationship skills and the type of identification are what prepare women to assume the role of adult.

Bleichmar explains the presence of guilt as a characteristic element of the female psyche, which regulate the relationship of women herself and her environment. She also proposes the hypothesis that fear of loss of love is the most dangerous situation that promotes anxiety in women, being the reassurance of emotional ties the main organizer of femininity.

Psychotherapy cannot have a position free from values of the therapist and the psychotherapeutic model used. Therefore, it seems essential to be aware of our ideology and gender bias when performing psychotherapy. Failure in observing these biases can cause variations in the perception of the problem, in the diagnosis, in the objectives to be treated, and in the etiological explanations of symptoms, according to sex of the patient.

Attending to gender, it is crucial for the development of psychotherapy to take into account certain aspects and to promote an egalitarian relationship between therapist and patient. The main objective would be to help the patient, male or female, to become aware of gender inequalities, analyzing the processes of socialization and considering the sources of internal and external issues when addressing them. We should encourage the person to develop by itself a process of questioning of the generally associated assessments to the man or to the woman. And as mentioned above, it is imperative to note that individual female development is guided through a relational experience.

For all these reasons, it is essential to take into account all these different characteristics of female gender identity in order to structure the most appropriate therapy for each patient, following the lines of evidence-based recommendations for the treatment of major depression [23].

Specific depression-based psychological treatment for MDD is available, and this supportive psychotherapeutic management of depression facilitates the pharmacologic response [166].

These treatments have included cognitive-behavioral therapy, interpersonal psychotherapy, brief dynamic psychotherapy, and marital and family therapy.

Cognitive-behavioral theory [167] is the most empirically examined psychosocial theory in relation to the management and treatment of the depressed patient and emphasizes a number of dysfunctional attitudes, cognitions, and images associated with depressive symptomatology; Beck posited that cognitive distortions (negative self-schemas) cause depression and are associated with maintenance of the disorder; the cognitive perspective is elaborated further by learned helplessness models and hopelessness theory [168, 169]. In cognitive-behavioral therapy [170], education, behavioral assignments, and cognitive retraining form the active components

of psychotherapy [171]. This cognitive therapy has been demonstrated to be an effective short-term psychotherapy for depression [172].

Interpersonal psychotherapy of depression (IPT), which is demonstrated to be effective in acute treatment trials [173], addresses interpersonal difficulties such as interpersonal loss or grieving, role transitions, interpersonal disputes, and social deficits. The depressed female older adult, who could be struggling with loss of spouse or change in marital status, or transition from workplace to retirement or from having raised a family to an empty home, benefits from IPT.

Brief dynamic psychotherapy, which was not specifically designed for treatment of MDD, addresses current conflicts as manifestations of difficulty in early attachment.

From a psychoanalytic perspective, the pathology is due to the lack of integration of the feminine and masculine, and therefore, its goal is the aggregation of both poles while recognizing the vulnerability of female patients.

Similarly, research is needed to determine the efficacy of marital and family therapy in individuals with MDD. However, marital distress is a major event associated with the development of a depressive episode, marital discord often will persist after the remission of depression, and subsequent relapses are frequently associated with disruptions of marital relationships.

#### 26.7 Conclusion

Affective disorders are multifactorial diseases well delimited from the scientific and medical point of view, but the current process of globalization and the socioeconomic and cultural environment begin to have great importance and influence on them, especially the current gender construct.

In the past three decades, we have experienced great changes related to the redefinition of gender identity, with major changes in social, cultural, and economic level but not from a medical and psychopathological point of view, where gender identity is kept subordinated to the historical and traditional "feminity" of the symptomatology described from the past. Depression has also been affected by these changes becoming a global disease with the peculiarities of the sociocultural context where it appears, being influenced differently by the current gender perspective (incorporation of women into work, changes in the classic roles of identity, periods of crisis, and economic problems).

Nowadays, women must respond to classic and current roles: housewives, taking care of the family, caregiver role, the double workday (at the office, at home) many times without any support from their partners and without social appreciation of themselves as autonomous agents. This stressful environment can result in a disease, especially depression. Because of this process of transformation around gender identity, a new perspective of psychopathology must be done. Currently, it is emphasized the need to reconcile family and working life, but this is only possible with an equitable distribution of social and family responsibilities between men and women; otherwise they will continue to contribute to creating additional sources of

stress for women who are already subject to the performance of multiple roles. Recent studies show that job stress accompanied by an overload of activities at home increases the rates of depression among women.

From a purely epidemiological point of view, we know that women are typically from two to three times more likely to develop depressive disorders than men are; some authors claim that "depression is more unacceptable for men because it disagrees with the male stereotype," because it is difficult for men to recognize it and even harder to show it openly because it does not correspond with the masculine ideals of success in our society, so men often deny having depressive symptoms, and the collected data in research about prevalence do not agree with the clinical reality.

The preponderance of depression in women could carry a negative consequence: to think about depression as a female-stereotyped disorder. This may lead to overdiagnose depression in women and, potentially, overmedicate them, and on the other hand, depression in men may be overlooked, with the risks that it means.

The gender difference emerges earlier than previously thought, at the age of 12; it peaks in adolescence and declines in adulthood, remaining stable until senescence, when a small peak occurs. The knowledge of this fact should promote a universal screening in primary care, with a strong emphasis on adolescents. More studies should be done in children under 12 because evidence suggests that this gap emerges before and it would be necessary to detect it in order to do a preventing intervention. It is remarkable that puberty, menstrual cycle, pregnancy, and menopause are triggers for onset, recurrence, and exacerbation of affective disorders.

It is well known the value of hormonal function in the different developmental stages of women and the particular environmental factors that result in a psychopathological process (traumatic childhood experiences, low socioeconomic status, social isolation, family dynamics, particular aspects of personality), but we must take greater account of the traditional role of women established since ancient times and its current definition as a source of pathology.

The prevalent symptomatology in depressive women differs substantially respect to men, guiding us to underlying biological and cultural factors; it is shown that depressed women tend to have greater number of atypical symptoms than men have (excessive fatigue, hypersomnia and hyperorexia, more frequent anxiety symptoms, and somatic symptoms). The prevalence of atypical depression is twice higher in women than in men, with the consequent higher clinical severity and higher comorbidity which influences the onset of the disorder at an earlier age, the higher frequency of recurrent episodes and longer permanence of symptoms. All these specific events in women and the subjective opinion of excessive severity of symptoms could reflect an own depressogenic cognitive style associated with the female identity.

Regarding the pharmacological treatment, there are significant differences between women and men in the enzymatic metabolism of some of the antidepressants used (mainly related to the lower expression of P-gp in women), with the consequent differences in the clinical response to treatment; we also know that the response to antidepressants in depression with high anxiety comorbidity is smaller, so it seems that antidepressant use in women is generally less effective. Anyway, SSRIs are shown as the most effective treatment in women.

If we focus on psychotherapy, it is crucial to take into account an egalitarian relationship between therapist and patient and to become aware of gender inequalities, analyzing the processes of socialization and questioning the generally associated assessments to men or to women, being the cognitive-behavioral therapy the most empirically tested.

#### References

- American Psychiatric Association, editor. Diagnostic and statistical manual of mental disorders. 5th ed. Arlington, VA: American Psychiatric Association; 2013.
- Sadock BJ, Kaplan HI, Sadock VA. Kaplan & Sadock synopsis of psychiatry. Philadelphia, PA: Wolters Kluwer España; 2015.
- GBD. Disease and Injury incidence and prevalence collaborators and others. Global, regional
  and national incidence, prevalence and years lived with disability for 310 diseases and injuries, 1990–2015: a systematic analysis for the Gobal Burden of Disease Sutudy 2015. Lancet.
  2015;388:10053.
- Barbieri NB. Psychoanalytic contributions to the study of gender issues. Can J Psychiatr. 1999;44(1):72–6.
- 5. World Health Organization. World Health Survey. 2017.
- Ferrari AJ, Somerville AJ, Baxter AJ, Norman R, Pattern SB, Vos R, Whiteford HA. Global variation in the prevalence and incidence of major depressive disorder: a systematic review of the epidemiological literature. Psychol Med. 2013;43(3):471–81.
- 7. Murphy JA, et al. Prevalence and correlates of the proposed DSM-5 diagnosis of Chronic Depressive Disorder. J Affect Disord. 2012;139(2):172–80.
- 8. Harvard Medical School, 2007. National Comorbidity Survey. 2017.
- Weissman NM, Klerman GL. Sex differences and the epidemiology of depression. Arch Gen Psychiatry. 1977;34:98–111.
- Bromet E, Andrade LH, Hwang I, Sampson NA, Alonso J, de Girolamo G, Kessler RC. Crossnational epidemiology of DSM-IV major depressive episode. BMC Med. 2011;9:90.
- 11. Salk RH, Hyde JS, Abramson LY. Gender differences in depression in representative national samples: meta-analyses of diagnoses and symptoms. Psychol Bull. 2017;143(8):783–822.
- Hankin B. Development of sex differences in depressive and co-occurring anxious symptoms during adolescence: descriptive trajectories and potential explanations in a multiwave prospective study. J Clin Child Adolesc Psychol. 2009;38:460–72.
- Lewinsohn PM, Solomon A, Seeley JR, Zeiss A. Clinical implications of "subthreshold" depressive symptoms. J Abnorm Psychol. 2000;109(2):345–51.
- 14. Klein DN, Shankman SA, Lewinsohn PM, Seeley JR. Subthreshold depression in adolescents: predictors of escalation to full syndrome depressive disorders. J Am Acad Child Adolesc Psychiatry. 2009;48:703–10.
- Garrison CZ, Waller JL, Cuffe SP, McKeown RE, Addy CL, Jackson KL. Incidence of major depressive disorder and dysthymia in young adolescents. J Am Acad Child Adolesc Psychiatry. 1997;36(4):458–65.
- Freeman E, Sammel M, Boorman D, Zhang R. Longitudinal pattern of depressive symptoms around natural menopause. JAMA Psychiat. 2014;71:36–43.
- 17. Hyde JS, Mezulis AH, Abramson LY. The ABCs of depression: integrating affective, biological, and cognitive models to explain the emergence of the gender difference in depression. Psychol Rev. 2008;115:291–313.
- Piccinelli M, Wilkinson G. Gender differences in depression. Critical review. Br J Psychiatry. 2000;177:486–92.
- Nolen-Hoeksema S. Emotion regulation and psychopathology: the role of gender. Annu Rev Clin Psychol. 2012;8:161–87.

- 20. Zahn-Waxler C, Crick NR, Shirtcliff EA, Woods KE. The origins and development of psychopathology in females and males. In: Cohen D, Cicchetti D, editors. Handbook of developmental psychopathology. Hoboken, NJ: Wiley; 2006. p. 76–139.
- 21. Kravitz H, Schott L, Joffe H, Cyranowski J, Bromberger J. Do anxiety symptoms predict major depressive disorder in midlife women? The Study of Women's Health Across the Nation (SWAN) Mental Health Study (MHS). Psychol Med. 2014;44:2593–602.
- 22. Martel M. Sexual selection and sex differences in the prevalence of childhood externalizing and adolescent internalizing disorders. Psychol Bull. 2013;139:1221–59.
- 23. Aldao A, Nolen-Hoeksema S, Schweizer S. Emotion-regulation strategies across psychopathology: a meta-analytic review. Clin Psychol Rev. 2010;30(2):217–37.
- 24. Jose PE, Kljakovic M, Scheib E, Notter O. The joint development of traditional bullying and victimization with cyberbullying and victimization in adolescence. J Res Adolesc. 2011;22:301–9.
- American Psychological Association. Report of the task force on the sexualization of girls. Washington, DC: American Psychological Association; 2007.
- 26. Graff KA, Murnen SK, Krause AK. Low-cutshirts and highheeled shoes: increased sexualization across time in magazine depictions of girls. Sex Roles. 2013;69(11–12):571–82.
- 27. Bor W, Dean AJ, Najman J, Hayatbakhsh R. Are child and adolescent mental health problems increasing in the 21st century? A systematic review. Aust N Z J Psychiatry. 2014;48:606–16.
- 28. Kendler KS, Neale MC, Kessler RC, Heath AC, Eaves LJ. A population-based twin study of major depression in women. The impact of varying definitions of illness. Arch Gen Psychiatry. 1992;49(4):257–66.
- 29. Kendler KS, Neale MC, Kessler RC, Heath AC, Eaves LJ. A longitudinal twin study of 1-year prevalence of major depression in women. Arch Gen Psychiatry. 1993;50(11):843–52.
- Silberg J, Pickles A, Rutter M, Hewitt J, Simonoff E, Maes H, Carbonneau R, Murrelle L, Foley D, Eaves L. The influence of genetic factors and life stress on depression among adolescent girls. Arch Gen Psychiatry. 1999;56(3):225–32.
- 31. Accortt EE, Freeman MP, Allen JJ. Women and major depressive disorder: clinical perspectives on causal pathways. J Womens Health (Larchmt). 2008;17(10):1583–90.
- 32. Caspi A, Sugden K, Moffitt TE, Taylor A, Craig IW, Harrington H, McClay J, Mill J, Martin J, Braithwaite A, Poulton R. Influence of life stress on depression: moderation by a polymorphism in the 5-HTT gene. Science. 2003;301(5631):386–9.
- 33. Eley TC, Sugden K, Corsico A, Gregory AM, Sham P, McGuffin P, Plomin R, Craig IW. Geneenvironment interaction analysis of serotonin system markers with adolescent depression. Mol Psychiatry. 2004;9(10):908–15.
- 34. Bundío BL, Rahola GJ. Trastornos depresivos en la mujer. In: Leal C, editor. Tratamiento de los trastornos afectivos en la mujer. Barcelona: Masson; 1999. p. 189–234.
- 35. Kornstein SG, Sloan DM, Thase ME. Gender-specific differences in depression and treatment response. Psychopharmacol Bull. 2002;36(4 Suppl 3):99–112.
- Hankin BL, et al. Depression from childhood into late adolescence: influence of gender, development, genetic susceptibility, and peer stress. J Abnorm Psychol. 2015;124:803–16.
- 37. Salk RH, Petersen JL, Abramson LY, Hyde JS. The contemporary face of gender differences and similarities in depression throughout adolescence: development and chronicity. J Affect Disord. 2016;205:28–35.
- 38. Ge X, Conger RD, Elder JH Jr. Pubertal transition, stressful life events, and the emergence of gender differences in adolescent depressive symptoms. Dev. Psychol. 2001;37(3):404–17.
- 39. Klaiber EL, Broverman DM, Vogel W, Kobayashi Y. Estrogen therapy for severe persistent depressions in women. Arch Gen Psychiatry. 1979;36(5):550–4.
- 40. Biegon A, McEwen BS. Modulation by estradiol of serotonin receptors in brain. J Neurosci. 1982;2(2):199–205.
- 41. Pajer K. New strategies in the treatment of depression in women. J Clin Psychiatry. 1995;56(Suppl 2):30–7.
- 42. Cohen IR, Wise PM. Effects of estradiol on the diurnal rhythm of serotonin activity in micro-dissected brain areas of ovariectomized rats. Endocrinology. 1988;122(6):2619–25.

- 43. Seidman SN. The neuroendocrine system in late life. In: Roose SP, Sackeim HA, editors. Latelife depression. New York: Oxford University Press; 2004. p. 167–81.
- 44. Epperson C, Sammel M, Freeman E. Menopause effects on verbal memory: findings from a longitudinal community cohort. J Clin Endocrinol Metab. 2013;98:3829–38.
- 45. Epperson C, Sammel M, Scalice S, Conlin R, Freeman E. Early life adversity increases risk of new onset depression during the menopause transition. In: Annual Meeting of the American College of Neuropsychopharmacology, Hollywood, FL. 2013.
- 46. Schiller CE, et al. The role of reproductive hormones in postpartum depression. CNS Spectr. 2015;20(1):48–59.
- 47. Vesga-Lopez O, Blanco C, Keyes K, Olfson M, Grant BF, Hasin DS. Psychiatric disorders in pregnant and postpartum women in the United States. Arch Gen Psychiatry. 2008;65:805–15.
- 48. Skalkidou A, Hellgren C, Comasco E, Sylven S, Sundström Poromaa I. Biological aspects of postpartum depression. Womens Health. 2012;8:659–72.
- 49. Soares CN. Mood disorders in midlife women: understanding the critical window and its clinical implications. Menopause. 2014;21:198–206.
- 50. Lombardo M, Ashwin E, Auyeung B, Chakrabarti B, Lai MC, Taylor K, Hackett G, Bullmore E, Baron-Cohen S. Fetal programming effects of testosterone on the reward system and behavioral approach tendencies in humans. Biol Psychiatry. 2012;72:839–47.
- 51. Jaworska N, Yang X, Knott V, Macqueen G. A review of fMRI studies during visual emotive processing in major depressive disorder. World J Biol Psychiatry. 2014;16:448–71.
- 52. Soares CN, Zitek B. Reproductive hormone sensitivity and risk for depression across the female life cycle: a continuum of vulnerability? J Psychiatry Neurosci. 2008;33:331–43.
- 53. Goldstein JM, Holsen L, Handa R, Tobet S. Fetal hormonal programming of sex differences in depression: linking women's mental health with sex differences in the brain across the lifespan. Front Neurosci. 2014;8:247.
- 54. Buss C, Davis E, Shahbaba B, Pruessner J, Head K, Sandman C. Maternal cortisol over the course of pregnancy and subsequent child amygdala and hippocampus volumes and affective problems. Proc Natl Acad Sci. 2012;109:1312–9.
- 55. Sandman C, Glynn L, Davis E. Is there a viability-vulnerability tradeoff? Sex differences in fetal programming. J Psychosom Res. 2013;75:327–35.
- Grey K, Davis E, Sandman C, Glynn L. Human milk cortisol is associated with infant temperment. Psychoneuroendocrinology. 2012;38:1178–85.
- 57. Susan Nolen-Hoeksema S, Wisco BE, Lyubomirsky S. Rethinking rumination. Perspect Psychol Sci. 2008;3(5):400–24.
- 58. Barrett LF, Bliss-Moreau E. She's emotional. He's having a bad day: attributional explanations for emotion stereotypes. Emotion. 2009;9(5):649–58.
- 59. Barret LF, Lane RD, Sechrest L, Schwartz GE. Sex differences in emotional awareness. Personal Soc Psychol Bull. 2000;26:3–29.
- 60. Rose AJ, Carlson W, Waller EM. Prospective associations of co-rumination with friendship and emotional adjustment: considering the socioemotional trade-offs of co-rumination. Dev Psychol. 2007;43(4):1019–31.
- 61. Nolen-Hoeksema S. Sex differences in unipolar depression: evidence and theory. Psychol Bull. 1987;101(2):259–82.
- 62. Lazarevich I, Mora-Carrasco F. Depresión y género: factores psicosociales de riesgo. Salud Problema, segunda época. 2008;1(4):9–18.
- 63. Gur R, Richard J, Calkins M, Chiavacci R, Hansen J, Bilker W, Loughead J, Connolly J, Qiu H, Mentch F, Abou-Sleiman P, Hakonarson H, Gur R. Age group and sex differences in performance on a computerized neurocognitive battery in children age 8–21. Neuropsychology. 2012;26:251–65.
- 64. Thompson A, Voyer D. Sex differences in the ability to recognise non-verbal displays of emotion: a metaanalysis. Cognit Emot. 2014;28:1164–95.
- 65. Nazroo JY, Edwards AC, Brown GW. Gender differences in the onset of depression following a shared life event: a study of couples. Psychol Med. 1997;27(1):9–19.

- 66. Brückner H, Mayer KU. De-standardization of the life course: what it might mean? And if it means anything, whether it actually took place? Adv Life Course Res. 2005;9:27–53.
- 67. Reiss F. Socioeconomic inequalities and mental health problems in children and adolescents: a systematic review. Soc Sci Med. 2013;90:24–31.
- 68. Belle D, Doucet J. Poverty, inequality, and discrimination as sources of depression among U. S. women. Psychol Women O. 2003;27:1–12.
- 69. Koss MP, Goodman LA, Browne A, Fitzgerald LF, Russo NF, Keita GP. No safe haven: male violence against women at home, at work, and in the community. Washington, DC: American Psychological Association: 1994.
- 70. Viveros M, Bernal M, Gómez F, Serna G. Masculinidades y violencia intrafamiliar en Colombia. Texto final de la consultoría presentada a la Consejería para la Política Social-Política de Construcción de Paz y Conciencia Familiar. Santafé de Bogotá: s.n. 2000.
- 71. Echeburúa E, de Corral P, Amor PJ, Sarasua B, Zubizarreta I. Repercusiones psicopatológicas de la violencia doméstica en la mujer: un estudio descriptivo. Revista de Psicopatología y Psicología Clínica. 1997;2(1):7–19.
- 72. Walker LEA. The battered woman syndrome. New York: Springer; 1984/2000.
- 73. Ferrando Bundío L. Salud Mental y Género en la práctica clínica. Ars Médica s.l. 2007.
- 74. Wood W, Eagly AH. Biosocial construction of sex differences and similarities in behavior. Adv Exp Soc Psychol. 2012;46:55–123.
- 75. Pérez Blasco J, Serra DE. Influencia del rol tradicional femenino en la sintomatología ansiosa en una muestra de mujeres adultas. Anales de psicología. 1997;13(2):155–61.
- 76. Hopcroft RL, Bradley DB. The sex difference in depression across 29 countries. Soc Forces. 2007;85:1483–507.
- 77. Van de Velde S, Huijts T, Bracke P, Bambra C. Macro-level gender equality and depression in men and women in Europe. Sociol Health Illness. 2013;35(5):682–98.
- 78. Barberá E, et al. Psicología y género. Madrid: Pearson Prentice Hall; 2004.
- 79. Medina-Mora ME, Borges G, Lara C, Benjet C, Blanco J, et al. Prevalencia de trastornos mentales y uso de servicios: Resultados de la Encuesta Nacional de Epidemiología Psiquiátrica en México. Salud Mental. 2003;26:1–16.
- 80. Walters V, McDonough P, Strohschein L. The influence of work, household structure, and social, personal and material resources on gender differences in health: an analysis of the 1994 Canadian National Population Health Survey. Soc Sci Med. 2002;54(5):677–92.
- 81. Pudrovska T, Karraker A. Gender, job authority and depression. J Health Soc Behav. 2014;55(4):424–41.
- 82. Patten SB, Williams JV, Lavorato DH, Eliasziw M. Major depression and injury risk. Can J Psychiatr. 2010;55:313–8.
- 83. Frackiewicz EJ, Sramek JJ, Cutler NR. Gender differences in depression and antidepressant pharmacokinetics and adverse events. Ann Pharmacother. 2000;34:80–8.
- 84. Keers R, Aitchison KJ. Gender differences in antidepressant drug response. Int Rev Psychiatry. 2010;22:485–500.
- 85. Theorell T, Hammarstrom A, Gustafsson PE, Magnusson Hanson L, Janlert U, Westerlund H. Job strain and depressive symptoms in men and women: a prospective study of the working population in Sweden. J Epidemiol Community Health. 2014;68:78–82.
- 86. Jaeyoung K, Choi Y. Gender differences in the longitudinal association between work-related injury and depression. Int J Environ Res Public Health. 2016;13(11):1077.
- 87. Hirshbein LD. American Melancholy: constructions of depression in the twentieth century. New Brunswick: Rutgers University Press; 2009.
- 88. Simonelli L, Heinberg LJ. Gender and minority mental health: the case of body image. In: Loue S, Sajatovic M, editors. Determinants of minority mental health and wellness. New York: Springer; 2009. p. 193–219.
- 89. Neitzke AB. An illness of power: gender and the social causes of depression. Cult Med Psychiatry. 2016;40(1):59–73.
- 90. Entringer S, Buss C, Shirtcliff E, Cammack A, Yim I, Chicz-DeMet A, Sandman C, Wadhwa P. Attenuation of maternal psychophysiological stress responses and the maternal cortisol awakening response over the course of human pregnancy. Stress. 2010;13:258–68.

- Cohen LS, Altshuler LL, Harlow BL, Nonacs R, Newport DJ, Viguera AC, Suri R, Burt VK, Hendrick V, Reminick AM, Loughead A, Vitonis AF, Stowe ZN. Relapse of major depression during pregnancy in women who maintain or discontinue antidepressant treatment. JAMA. 2006;295:499–507.
- 92. Munk-Olsen T, Laursen TM, Mendelson T, Pedersen CB, Mors O, Mortensen PB. Risks and predictors of readmission for a mental disorder during the postpartum period. Arch Gen Psychiatry. 2009;66:189–95.
- Esscher A, Essen B, Innala E, Papadopoulos FC, Skalkidou A, Sundström-Poromaa I, Hogberg U. Suicides during pregnancy and 1 year postpartum in Sweden, 1980–2007. Br J Psychiatry. 2015;208:462–9.
- Altemus M, Neeb C, Davis A, Occhiogrosso M, Nguyen T, Bleiberg K. Phenotypic differences between pregnancy-onset and postpartum-onset major depressive disorder. J Clin Psychiatry. 2013;73:e1485–91.
- 95. Moreno Fernández A, Rodríguez Vega B, Carrasco Galán MJ, Sánchez Hernández JJ. Relación de pareja y sintomatología depresiva de la mujer: implicaciones clínicas desde una perspectiva de género. Apuntes de Psicología. 2009;27:489–506.
- Blanco C, Vesga-Lopez O, Stewart J, Liu S, Grant B, Hasin D. Epidemiology of major depression with atypical features: results from the National Epidemiologic Survey on Alcohol and Related Conditions (NESARC). J Clin Psychiatry. 2012;73:224

  –32.
- 97. Haley C, Sung S, Rush A, Trivedi M, Wisniewski S, Luther J, Kornstein S. The clinical relevance of self-reported premenstrual worsening of depressive symptoms in the management of depressed outpatients: a STAR\*D report. J Women's Health. 2013;22:219–29.
- 98. Gold PWCG. Organization of the stress system and its dysregulation in melancholic and atypical depression: high vs low CRH/NE states. Mol Psychiatry. 2002;7:254–75.
- 99. Klink R, Robichaud M, Debonnel G. Gender and gonadal status modulation of dorsal raphe nucleus serotonergic neurons. Part I: effects of gender and pregnancy. Neuropharmacology. 2002;43:1119–28.
- Herbison AE. Estrogen regulation of GABA transmission in rat preoptic area. Brain Res Bull. 1997;44(4):321–6.
- 101. Antonijevic IA. Depressive disorders—is it time to endorse different pathophysiologies? Psychoneuroendocrinology. 2006;31(1):1–15.
- 102. Angst J, Dobler-Mikola A. The Zurich Study: a prospective epidemiological study of depressive, neurotic and psychosomatic syndromes. IV. Recurrent and nonrecurrent brief depression. Eur Arch Psychiatry Neurol Sci. 1985;234(6):408–16.
- 103. Birmaher B, Williamson DE, Dahl DE, Axelson DA, Kaufman J, Dorn LD, Ryan NR. Clinical presentation and course of depression in youth: does onset in childhood differ from onset in adolescence? J Am Acad Child Adolesc Psychiatry. 2004;43:63–70.
- 104. Bangasser D, Valentino R. Sex differences in stress-related psychiatric disorders: neurobiological perspectives. Front Neuroendocrinol. 2014;35:303–19.
- 105. Amenson CS, Lewinsohn PM. An investigation into the observed sex difference in prevalence of unipolar depression. J Abnorm Psychol. 1981;90(1):1–13.
- Lewinsohn PM, Zeiss AM, Duncan EM. Probability of relapse after recovery from an episode of depression. J Abnorm Psychol. 1989;98(2):107–16.
- Lewinsohn PM, Pettit JW, Joiner TE Jr, Seeley JR. The symptomatic expression of major depressive disorder in adolescents and young adults. J Abnorm Psychol. 2003;112(2):244–52.
- 108. Kovacs M. Gender and the course of major depressive disorder through adolescence in clinically referred youngsters. J Am Acad Child Adolesc Psychiatry. 2001;40(9):1079–85.
- 109. Barnett RC, Brennan RT, Marshall NL. Gender and the relationship between parent role quality and psychological distress: a study of men and women in dual-earner couples. J Fam Issues. 1995;15:229–52.
- Kessler RC, McGonagle KA, Swartz M, Blazer DG, Nelson CB. Sex and depression in the National Comorbidity Survey. I: lifetime prevalence, chronicity and recurrence. J Affect Disord. 1993;29(2–3):85–96.
- 111. Rohde P, Lewinsohn PM, Seeley JR. Are adolescents changed by an episode of major depression? J Am Acad Child Adolesc Psychiatry. 1994;33(9):1289–98.

- 112. Nolen-Hoeksema S. The role of rumination in depressive disorders and mixed anxiety/depressive symptoms. J Abnorm Psychol. 2000;109(3):504–11.
- 113. Teasdale JD. Cognitive vulnerability to persistent depression. Cognit Emot. 1988;2:247–74.
- 114. Jansson M, Gatz M, Berg S, Johansson B, Malmberg B, McClearn GE, Schalling M, Pedersen NL. Gender differences in heritability of depressive symptoms in the elderly. Psychol Med. 2004;34(3):471–9.
- 115. Kendler KS, Gatz M, Gardner CO, Pedersen NL. A Swedish national twin study of lifetime major depression. Am J Psychiatry. 2006;163:109–14.
- 116. Joiner T, Coyne JC, editors. The interactional nature of depression: advances in interpersonal approaches. Washington, DC: American Psychological Association; 1999.
- 117. Post RM, Weiss SRB. Neurobiology of treatment-resistant mood disorders. In: Bloom FE, Kupfer DJ, editors. Psychopharmacology. The fourth generation of progress. New York: Raven Press; 1994. p. 1155–70.
- Merikangas K, Gelernter C. Comorbidity for alcoholism and depression. Psychiatr Clin N Am. 1990;13:613–32.
- 119. Perkonigg A, Lieb R, Wittchen HU. Dependence of illicit drugs among adolescents and young adults in a community sample. Eur Addict Res. 1998;4:58–66.
- 120. Swendsen JD, Merikangas KR. The comorbidity of depression and substance use disorders. Clin Psychol Rev. 2000;20:173–89.
- 121. Kinnier RT, Metha AT, Okey JL, Keim J. Adolescent substance abuse and psychological health. J Alcohol Drug Educ. 1994;40:51–5.
- 122. Quitkin FM, Stewart JW, McGrath PJ, Taylor BP, Tisminetzky MS, Petkova E, Chen Y, Ma G, Klein DF. Are there differences between women's and men's antidepressant responses? Am J Psychiatry. 2002;159(11):1848–54.
- 123. Hildebrandt MG, Steyerberg EW, Stage KB, Passchier J, Kragh-Soerensen P, Danish University Antidepressant Group. Are gender differences important for the clinical effects of antidepressants? Am J Psychiatry. 2003;160(9):1643–50.
- 124. Davidson J, Pelton S. Forms of atypical depression and their response to antidepressant drugs. Psychiatry Res. 1986;17(2):87–95.
- 125. Sramek JJ, Murphy MF, Cutler NR. Sex differences in the psychopharmacological treatment of depression. Dial Clin Neurosci. 2016;18:447–57.
- 126. Williams AV, et al. The impact of sex as a biological variable in the search for novel antidepressants. Front Neuroendocrinol. 2018;50:107–17.
- 127. Noordam R, Aarts N, Tiemeier H, Hofman A, Stricker BH, Visser LE. Sex-specific association between antidepressant use and body weight in a population-based study in older adults. J Clin Psychiatry. 2015;76(6):e745–51.
- 128. Young EA, Kornstein SG, Marcus SM, et al. Sex differences in response to citalopram: a STAR\*D report. J Psychiatr Res. 2009;43(5):503–11.
- 129. Kornstein SG, Pedersen RD, Holland PJ, et al. Influence of sex and menopausal status on response, remission, and recurrence in patients with recurrent major depressive disorder treated with venlafaxine extended release or fluoxetine: analysis of data from the PREVENT study. J Clin Psychiatry. 2014;75(1):62–8.
- 130. Cheung C, Yu AM, Ward JM, Krausz KW, Akiyama TE, Feigenbaum L, Gonzalez FJ. The cyp2e1-humanized transgenic mouse: role of cyp2e1 in acetaminophen hepatotoxicity. Drug Metab Dispos. 2005;33(3):449–57.
- Relling MV, Lin JS, Ayers GD, Evans WE. Racial and gender differences in N-acetyltransferase, xanthine oxidase, and CYP1A2 activities. Clin Pharmacol Ther. 1992;52(6):643–58.
- 132. Jin Y, Pollock BG, Frank E, Cassano GB, Rucci P, Müller DJ, et al. Effect of age, weight, and CYP2C19 genotype on escitalopram exposure. J Clin Pharmacol. 2010;50(1):62–72.
- 133. Hägg S, Spigset O, Dahlqvist R. Influence of gender and oral contraceptives on CYP2D6 and CYP2C19 activity in healthy volunteers. Br J Clin Pharmacol. 2001;51(2):169–73.
- 134. Laine K, Tybring G, Bertilsson L. No sex-related differences but significant inhibition by oral contraceptives of CYP2C19 activity as measured by the probe drugs mephenytoin and omeprazole in healthy Swedish white subjects. Clin Pharmacol Ther. 2000;68(2):151–9.

- 135. Tamminga WJ, Wemer J, Oosterhuis B, Wieling J, Wilffert B, de Leij LFMH, de Zeeuw RA, Jonkman JHG. CYP2D6 and CYP2C19 activity in a large population of Dutch healthy volunteers: indications for oral contraceptive-related gender differences. Eur J Clin Pharmacol. 1999;55:177–84.
- 136. Kuo HW, Liu SC, Tsou HH, et al. CYP1A2 genetic polymorphisms are associated with early antidepressant escitalopram metabolism and adverse reactions. Pharmacogenomics. 2013;14(10):1191–201.
- 137. Ilic K, Hawke RL, Thirumaran RK, et al. The influence of sex, ethnicity, and CYP2B6 genotype on bupropion metabolism as an index of hepatic CYP2B6 activity in humans. Drug Metab Dispos. 2013;41(3):575–81.
- 138. Hiemke C, Härtter S. Pharmacokinetics of selective serotonin reuptake inhibitors. Pharmacol Ther. 2000;85:11–28.
- 139. Gex-Fabry M, Eap CB, Oneda B, et al. CYP2D6 and ABCB1 genetic variability: influence on paroxetine plasma level and therapeutic response. Ther Drug Monit. 2008;30:474–82.
- 140. Reis M, Lundmark J, Bengtsson F. Therapeutic drug monitoring of racemic citalopram: a 5-year experience in Sweden, 1992–1997. Ther Drug Monit. 2003;25:183–91.
- 141. Gupta B, Keers R, Uher R, McGuffin P, Aitchison KJ. Pharmacogenetics of antidepressant response. In: Pariante C, Nesse RM, Nutt D, Wolpert L, editors. Understanding depression: a translational approach. Oxford: Oxford University; 2009.
- 142. Serretti A, Kato M, De Ronchi D, Kinoshita T. Meta-analysis of serotonin transporter gene promoter polymorphism (5-HTTLPR) association with selective serotonin reuptake inhibitor efficacy in depressed patients. Mol Psychiatry. 2007;12:247–57.
- 143. Mrazek DA, Rush AJ, Biernacka JM, et al. SLC6A4 variation and citalopram response. Am J Med Genet B Neuropsychiatr Genet. 2008;150:341–51.
- 144. Huezo-Diaz P, Uher R, Smith R, Rietschel M, Henigsberg N, Marus A, et al. Moderation of antidepressant response by the serotonin transporter gene in the GENDEP study. Br J Psychiatry. 2009;195:30–8.
- 145. Schmidt PJ, Murphy JH, Haq N, Danaceau MA, St Clair L. Basal plasma hormone levels in depressed perimenopausal women. Psychoneuroendocrinology. 2002;27(8):907–20.
- 146. Morgan ML, Cook IA, Rapkin AJ, Leuchter AF. Estrogen augmentation of antidepressants in perimenopausal depression: a pilot study. Clin Psychiatry. 2005;66(6):774–80.
- 147. Nagata H, Nozaki M, Nakano H. Short-term combinational therapy of low-dose estrogen with selective serotonin re-uptake inhibitor (fluvoxamine) for oophorectomized women with hot flashes and depressive tendencies. J Obstet Gynaecol Res. 2005;31(2):107–14.
- 148. Papakostas GI, Thaseb ME, Favaa CM, Nelsond JC, Sheltone RC. Are antidepressant drugs that combine serotonergic and noradrenergic mechanisms of action more effective than the selective serotonin reuptake inhibitors in treating major depressive disorder? A meta-analysis of studies of newer agents. Biol Psychiatry. 2007;62(11):1217–27.
- 149. Papakostas GI, McGrath P, Stewart J, Charles D, Chen Y, Mischoulon D, Dording C, Fava M. Psychic and somatic anxiety symptoms as predictors of response to fluoxetine in major depressive disorder. Psychiatry Res. 2008;161(1):116–20.
- 150. Berlanga C, Flores-Ramos M. Different gender response to serotonergic and noradrenergic antidepressants. A comparative study of the efficacy of citalopram and reboxetine. J Affect Disord. 2006;95(1–3):119–23.
- 151. Bryant DN, Sheldahl LC, Marriott LK, Shapiro RA, Dorsa DM. Multiple pathways transmit neuroprotective effects of gonadal steroids. Endocrine. 2006;29(2):199–207.
- 152. Pae CU, Mandelli L, Kim TS, et al. Effectiveness of antidepressant treatments in premenopausal versus post-menopausal women: a pilot study on differential effects of sex hormones on antidepressant effects. Biomed Pharmacother. 2009;63(3):228–35.
- 153. Stewart DE, Rolfe DE, Robertson E. Depression, estrogen, and the Women's Health Initiative. Psychosomatics. 2004;45(5):445–7.
- 154. Zanardi R, Rossini D, Magri L, Malaguti A, Colombo C, Smeraldi E. Response to SSRIs and role of the hormonal therapy in post-menopausal depression. Eur Neuropsychopharmacol. 2007;17(6–7):400–5.

- 155. Carretti N, Florio P, Bertolin A, Costa CV, Allegri G, Zilli G. Serum fluctuations of total and free tryptophan levels during the menstrual cycle are related to gonadotrophins and reflect brain serotonin utilization. Hum Reprod. 2005;20(6):1548–53.
- 156. Vadakkadath Meethal S, Atwood CS. The role of hypothalamic-pituitary-gonadal hormones in the normal structure and functioning of the brain. Cell Mol Life Sci. 2005;62(3):257–70.
- 157. Joyce PR, Mulder RT, Luty SE, Sullivan PF, McKenzie JM, Abbott RM, Stevens IF. Patterns and predictors of remission, response and recovery in major depression treated with fluoxetine or nortriptyline. Aust N Z J Psychiatry. 2002;36(3):384–91.
- 158. Pinna G, Costa E, Guidotti A. SSRIs act as selective brain steroidoenic stimulants (SBSSs) at low doses that are inactive on 5-HT reuptake. Curr Opin Pharmacol. 2009;9:24–30.
- 159. Porcu P, O'Buckley T, Alward S, et al. Simultaneous quantification of GABAergic 3alpha,5alpha,5alpha,5 $\beta$  neuroactive steroids in human and rat serum. Steroids. 2009;74:463–73.
- 160. Kornstein SG, Clayton AH, Soares CN, Padmanabhan SK, Guico-Pabia CJ. Analysis by age and sex of efficacy data from placebo-controlled trials of desvenlafaxine in outpatients with major depressive disorder. J Clin Psychopharmacol. 2010;30(3):294–9.
- 161. Cuijpers P, Weitz E, Twisk J, et al. Gender as predictor and moderator of outcome in cognitive behavior therapy and pharmacotherapy for adult depression: an "individual patient data" meta-analysis. Depress Anxiety. 2014;31(11):941–51.
- 162. Olgiati P, Bajo E, Bigelli M, Montgomery S, Serretti A, C.E.A.P. Group. Challenging sequential approach to treatment resistant depression: cost-utility analysis based on the Sequenced Treatment Alternatives to Relieve Depression (STAR D) trial. Eur Neuropsychopharmacol. 2013;23(12):1739–46.
- 163. Khan A, Brodhead AE, Schwartz KA, Kolts RL, Brown WA. Sex differences in antidepressant response in recent antidepressant clinical trials. J Clin Psychopharmacol. 2005;25(4):318–24.
- 164. Pae CU, Mandelli L, Kim TS, Han C, Masand PS, Marks DM, Patkar AA, Steffens DC, De Ronchi D, Serretti A. Effectiveness of antidepressant treatments in pre-menopausal versus post-menopausal women: a pilot study on differential effects of sex hormones on antidepressant effects. Biomed Pharmacother. 2009;63(3):228–35.
- 165. Phyllis T. A developmental line of gender identity role and choice of love of subject. Am Psychoanal Assoc J. 1986;30:61–86.
- 166. Gruenberg AM, Goldstein RD. Mood disorders: depression. In: Rasman A, Kay J, Lieberman JA, editors. Psychiatry, vol. 2. 2nd ed. Chichester: Wiley; 2003. p. 1207–36.
- 167. Beck AT. Cognitive therapy and the emotional disorders. New York: Meridian; 1976.
- Abramson LY, Metalsky GI, Alloy LB. Hopelessness depression: a theory-based subtype of depression. Psychol Rev. 1989;96:358–72.
- 169. Seligman MEP. Helplessness: on depression, development, and death. San Francisco, CA: W.H. Freeman; 1975.
- 170. DeRubeis RJ, Evans MD, Hollon SD, Garvey MJ, Grove WM, Tuason VB. How does cognitive therapy work? Cognitive change and symptom change in cognitive therapy and pharmacotherapy for depression. J Consult Clin Psychol. 1990;58:862–9.
- 171. Agency for Health Care Policy and Research Depression Guideline Panel. Depression in primary care. vol. 2. Treatment of major depression (Clinical Practice Guideline No. 5; ACHPR Publication No. 93-0551). Rockville, MD: U.S. Department of Health and Human Services, Public Health Service; 1993.
- 172. Elkin I, Shea MT, Watkins JT, Imber SD, Sotsky SM, Collins JF, Glass DR, Pilkonis PA, Leber WR, Docherty JP, et al. National Institute of Mental Health Treatment of Depression Collaborative Research Program. General effectiveness of treatments. Arch Gen Psychiatry. 1989;46(11):971–82.
- 173. Angold A, Costello EJ, Worthman CM. Puberty and depression: the roles of age, pubertal status, and pubertal timing. Psychol Med. 1998;28:51–61.



Anxiety Disorders 27

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#### **Abstract**

Anxiety disorders are more prevalent among women than men. A higher prevalence of anxiety in women compared with men has been repeatedly reported in the literature. The disorders include agoraphobia, posttraumatic stress disorder (PTSD), and generalized anxiety disorder (GAD). Similar data between the two sexes have been obtained for social phobia and obsessive-compulsive disorder (OCD). This suggests that biological, psychosocial, and cultural factors are related. The aim of this review is to incorporate sex and gender considerations into anxiety disorders, including current psychological theories and treatment of anxiety disorders.

Lower levels of assertiveness and self-support in women compared with men and men's lower levels of inclination toward dependency and helplessness contribute to the higher prevalence of reported anxiety in women. Gendered aspects of daily life can play a role as well. The relationship between psychopathology and femininity is itself a matter of discussion because it is assumed that masculine behavior is taken as the standard for mental health. From our

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point of view and because the methodological problems in research did not permit an objective review of this kind of complex causation, this could only result in speculation with regard to the available data. To explore the role of culture and ethnicity, future research is needed. The World Health Organization has identified gender as a critical determinant of mental health and mental illness and suggested that integrating gender considerations in health research contributes to better science and consequently to more effective and efficient mental health programs.

#### 27.1 Introduction

It is increasingly defended that being a man or woman influences not only the prevalence of mental disorders but also the manifestation and expression of symptoms, the willingness to request medical and psychological assistance, the course of the disease, and even the response to treatment [1, 2]. The WHO considers that not enough attention was being paid to the specific determinants of each sex in the mechanisms that promote and protect mental health and boost resistance to stress and adversity [3]. Whereas widespread attention has been paid to sex differences in the prevalence of anxiety disorders and their possible origins, limited research has been carried out on the gender perspective of these differences, which could influence treatment provided to these patients.

We define sex as the biological features distinguishing male and female animals and human beings, whereas gender consists of the sociocultural aspects of defining people's identity in relation to sex.

It is interesting to dedicate a separate section to the subject of gender and its relationship with anxiety. Understanding the construct of gender from a wide point of view, which we do not delve into here, but distinguishing it from differences between the sexes from anatomical and purely biological perspectives, we can reach numerous conclusions, which are named specifically in subsequent sections with regard to anxiety, which is the subject at hand.

Therefore, from the gender point of view, certain attributes have historically been given to women and men; these inexorably represent the roles of each, circumscribed on the basis of these attributes. While male sex is related to public space, the abstract, the word, and the active, female sex is related to the private, passive, and submission. In this way, the social, economic, and political roles, among others, to which each gender is assigned are different and lie below a dichotomy construct between opposites [4].

From an anthropological perspective, Strathern and MacCormack [5, 6] have stated a discourse about nature and culture that usually portrays nature as feminine; it must be subordinated to a culture that is constantly presented as active and abstract. Mind and reason are related to masculinity, whereas the body and nature are associated with femininity, awaiting significance provided by an opposing subject.

Thus, so-called symbolic domination is produced, which often adopts the form of bodily emotions—shame, humiliation, shyness, anxiety, and guilt—or passions and feelings, love, admiration, and respect, and sometimes more painful emotions when they become more visible manifestations such as flushing, verbal confusion, clumsiness, shaking, anger, or impotent rage, all of which are ways of being subjected, although it may be despite oneself, to the subterranean complicity of the guidelines of the conscience and willpower, which maintain social structures with inherent censure.

Although a specific section is devoted to each anxiety entity, the influence of gender, and its role in the distinct psychopathological expression between men and women, we can advance or propose their possible influence, for example, on the genesis of phobia and the rate of prevalence, where the woman, by being subjugated to the private space, fundamental to the household, could have greater difficulty, from this perspective, to be exposed to the public, both in presence and in manifestations (posture, language, etc.).

The different roles could influence the psychopathological expression of different mental diseases to such an extent that our own social dynamic is influenced by them. This can be observed, thanks to transgenerational changes that represent changes in the expression of the different roles and changes in representations, perceptions, appreciations, and opinions of society in general and the individual in particular. To this fact we should add the transcultural differences observable in gender roles, with significant ethnographic differences. Global analysis of these and other variables could bring us closer to understanding the influence of gender on different psychopathological expressions as a whole and, consequently, attempt to understand what these differences are caused by and explain the different prevalences of the various pathologies and their symptomatology and therapeutic alternatives based on this analysis.

# 27.2 Epidemiological Data

In several research studies of anxiety disorders of different population and cultural samples, women present prevalence figures that are substantially higher than those observed among men [7, 8]. It has been detected that women usually present a subjective perception of lower psychological welfare, worse quality of life, and worse state of health than men [9, 10]. The existence of anxiety disorders complicates or increases the risk of significant disability in the population that suffers from it, a disability similarly serious to that observed in other chronic diseases [11]. In general terms, there are predisposing factors (genetics, somatic diseases, psychological traumas during development, absence of coping mechanisms, thought, beliefs, and distorted cognitive processing) and other precipitating factors (somatic or toxic problems, external and intense long-lasting stress, stress that affects vulnerability, and other factors) [12, 13].

Other factors that suggest differences between sexes with regard to anxiety disorders in general are previous comorbidity, genetic predisposition, personality

traits, sexual hormones, endocrine reactivity to stress, the systems of neurotransmission, and neuropsychological determinants [14, 15].

As we have commented, women have higher prevalence rates of anxiety disorders. McLean et al. did an epidemiological study deepening how gender affects age of onset, chronicity, comorbidity, and burden of illness. In their study, the lifetime and 12-month male/female prevalence ratios of any anxiety disorder are 1:1.7 and 1:1.79, respectively. Women have higher rates of lifetime diagnosis for all the anxiety disorders except for social anxiety disorder which show no gender difference in prevalence. No gender differences were observed in age on onset and chronicity of illness. Nevertheless, women with a lifetime diagnosis of an anxiety disorder have got more probability to also be diagnosed with another anxiety disorder, bulimia nervosa, and major depressive disorder. Additionally, anxiety disorders are associated with a greater illness burden in women than in men. They propose that these results suggest that anxiety disorders are more prevalent and more disabling in women than in men [16].

Despite the lack of studies, there is more and more solid evidence that differences exist between the two sexes with regard to cerebral anatomy, neurochemistry, and activation and response patterns to environmental stimuli, as well as differences in the physiology and physiopathology of other body systems, differences that might influence the etiology and course of psychiatric disorders [17].

Over the menopausal period, different conditions have been proposed that could contribute to the genesis of anxiety symptomatology such as children leaving home ("empty nest"), the termination of work activity, changes in roles within the family, the appearance of diseases, loss of interpersonal relationships, and changes in physical appearance [18]. However, according to a study conducted by Faravelli, despite females run greater risk for affective and anxiety disorders, the vulnerability of women for these disorders varies with the age. Before menopause, women reported higher incidences of anxiety disorders. After menopause, the rates of cases who experienced an anxiety disorder for the first time did not distinguish between the two sexes [19].

Anxiety disorders are more prevalent among women than among men according to a literature review. Most data on the prevalence of anxiety disorders are based on self-reports, and various authors have hypothesized that observed sex differences are due, at least partly, to less willingness in men to report symptoms of anxiety [20, 21]. Traditional masculine sex role stereotypes may make it difficult for men to openly display weakness in general (crying). One may argue that the data regarding social phobia 1:1 do not support this assumption. Again the possibility that the true proportion of men with social phobia is higher than that of women cannot be ruled out because of the role that shame may play in men.

From a methodological point of view, prevalence differences may be an artifact associated with men's inhibition with regard to reporting symptoms, again ensuing from masculinity standards. The type of self-report measure used may influence the degree to which sex differences emerge. Furthermore, the relationship between psychopathology and femininity is itself a matter of discussion, because one may assume that masculine behavior is often, but erroneously, taken as the standard for mental health [22].

## 27.3 Psychological Models of Anxiety Disorders

Bekker and van Mens-Verhulst [22] explain the psychological theories of anxiety disorders. They begin with the learning perspective, which is the theory that is most extensively studied in the field of anxiety disorders, then sex role theories, and finally attachment and schema theory.

## 27.3.1 Learning Perspective

From this perspective one could question why more women than men develop phobic fear responses and/or phobic avoidance behavior. Using the terms conditioning or learning and gender or sex differences provides few clues. Authority works on anxiety disorders do not offer gender-specific viewpoints on the etiology of learned behavior, even if they consider the prevalence and possible background of sex differences.

It has been hypothesized that women are more vulnerable to being conditioned to fear responses. There is evidence supporting an exposure hypothesis (women compared with men are more frequently exposed to anxiety-evoking traumas and a vulnerability to anxiety disorders). Women's more frequent exposure to sexual violence has repeatedly been mentioned, as well as domestic violence against women, and poverty, all of which support the exposure hypothesis.

In addition to women being exposed to the trauma of sexual violence more often than men, other aversive stimuli occur more frequently in women's lives and/or may provoke more fear in them (lack of affirmation of one's personal identity, going out "unprepared" not in line with existing norms, not having acquired the skills needed in public, anonymous situations). Future research could focus on the gender-specific meanings of the situations being feared and avoided and relate these to their significance for specific demographic and individual differences and also for various subgroups of women [22].

# 27.3.2 Sex/Gender Role Perspective

From the sex role perspective, phobic avoidance behavior is an inevitable product of Western culture. The traditional feminine sex role discourages assertiveness and self-supportive behavior in women and prescribes them to react to stress with dependence and helplessness [23–28].

This sex role perspective on anxiety disorders has been studied since the 1970s, mainly in relation to agoraphobia. Agoraphobia in women was expected to decrease in frequency as Western culture placed more demands on women to be employed outside the home and to be self-reliant and assertive. From this perspective, the sex role not only comprises the gender role but also the socioeconomic positions society expects women and men to take. Two epidemiological studies supplied evidence for the hypothesis that the frequency of phobia among women might decrease as their

employment increased. However, to our knowledge this relationship has not been investigated during the past decade.

Another approach within the sex role perspective is to focus on a culture's masculinity and femininity. Based on the aforementioned assumption that sex roles and phobia within Western culture are frequently related, the degree of masculinity/femininity in 11 countries was compared (in countries with high masculinity, social gender roles are clearly distinct; in those with low masculinity/high femininity, gender differentiation is weak). High masculinity predicted higher national levels of agoraphobia and several specific fears, but not cross-national differences in social fears.

Another individual-level, gender role approach to anxiety and other disorders focuses on gender role stress (GRS). This approach places more emphasis on the stressful side of the gender role than does the sex role model, which uses more neutral feminine and masculine characteristics. The original authors defined GRS as stress resulting from a rigid commitment to gender roles, together with inherently dysfunctional coping. Masculine GRS components are (fear of) physical inadequacy, emotional expressiveness, subordination to women's intellectual inferiority, and performance failure. However, this study lacked both a measure of feminine GRS and a stress measure that may be more neutral. Therefore, it remains unknown whether the association would have been found for stress regardless of gender-bound nature or whether it is specifically for masculine GRS.

# 27.3.3 Attachment and Schema Theory: Gender Neutral and Gender Specific

Schemata are the inner working models to others that children develop in relation to their primary caregivers. If children experience their primary caregivers as insufficiently available or responsive to their needs, they develop a condition of insecure attachment. In the case of anxiety disorder, the insecure attachment may predominantly involve a fearful or avoidant attachment style. Most studies on attachment and anxiety disorders failed to report sex differences in the patterns of insecure attachment styles. This may have occurred because the original theory on attachment (as well as the schema theory) is gender neutral. With feminist neopsychoanalytical theory, a gender-specific version of the attachment theory has become available [29]. Authors consider the fact that the primary attachment person in children's lives is usually a woman—their mother—which provides a source of sex differences in autonomy development [30–32].

Considered from this perspective, the early same-sex mother-daughter relationship would imply that the symbiotic phase with the mother is longer, more enduring, and more intense for girls than it is for boys. As a result, girls would meet more problems with individuation and separation, boys with commitment and displaying their dependency needs.

The fact that insecure attachment may be expressed in sex-specific insecure attachment, styles and patterns of autonomy connectedness may contribute to the

unequal prevalence of many mental disorders, including anxiety disorders between the sexes.

## 27.3.4 Clarification Remarks and Proposals

One explanation refers to the lower levels of assertiveness and self-support in women compared with men, and men's lower levels of inclination toward dependency and helplessness, all factors that contribute to anxiety complaints. Also, alcohol abuse appeared to be a masculine (thus gendered) masking strategy. On the other hand, using anxiolytics and engaging in binging can be assumed to be feminine masking strategies. Gendered aspects of daily life can play a role as well. However, neither the role of feminine gender role stress nor the interaction with gender-neutral stress has been studied in relation to these factors.

Sexual and physical assaults must be acknowledged as etiological factors with the unchallenged fact that the percentage of female survivors surpasses that of men by almost tenfold.

There are those who defend the theory that despite sociocultural determinants influencing the psychopathological differences in anxiety between the two sexes, they do not explain the differences in the prevalence of anxiety disorders. Nor do the processes of socialization and sexual roles determine those differences [33, 34]. It is plausible that other psychological and biological factors are also important, such as a more feminine pattern of reacting to bodily sensations in interaction with specific attachment styles. More research remains to be done in these areas.

The relationship between psychopathology and femininity is in itself a matter of discussion, because one may assume that masculine behavior is often, but erroneously, taken as the standard for mental health.

There are deficiencies in sex-specific information on the prevalence of the common Diagnostic and Statistical Manual of Mental Disorders (DSM) anxiety disorders in specific ethnic groups, as well as prevalence in non-Western anxiety disorders in and outside of Western countries, including their gender distribution. To explore the role of culture and ethnicity, future research should determine whether and to what extent changes are occurring in the distribution of specific subtypes of anxiety disorders.

From our point of view, gender roles should be given more attention in therapy research. More data should be collected on the gender characteristics of patients, therapists, and therapeutic relationships, instead of sex characteristics only.

# 27.4 Biological Factors

A common genetic vulnerability exists for panic disorder, generalized anxiety, agoraphobia, and affective disorders [35]. This vulnerability consists of a neurobiological response of hyperactivity to stress, with a chronic increase in the function of the neurochemical systems (corticotropin- and adrenaline-releasing

factor) that mediate in the response to stress and that act on determined cerebral regions (hippocampus and medial prefrontal, temporal, parietal, and cingulate cortex) [36]. When the activity of the amygdala, which is crucial for subjects in remembering the emotional events after viewing slides of disturbing images, was assessed, men who showed an intense emotional response exhibited greater activity in the right amygdala, while women exhibited greater activity in the left amygdala [37, 38]. Whereas anxiety due to separation from the mother increased the concentration of serotonin receptors in the amygdala of boys, the same situation decreased the concentration of these receptors in girls. If we add to this theory that the production of serotonin is 52% higher in the male subject than in the female [39, 40], it turns out to be a very interesting and promising line of research to be able to understand the predisposition of women to developing anxiety and mood disorders.

Furthermore, although gender differences have been identified as a very important factor for studying stress-related anxiety and associated clinical disorders, the neural mechanisms that justify these differences are not clear. Seo et al. did a study to explore gender differences in the neural correlates of stress-induced anxiety using functional magnetic resonance imaging. During the task, they found a significant gender pivotal effect. Men showed considerable responses in the caudate, cingulate gyrus, midbrain, thalamus, and cerebellum, while women exhibited greater responses in the posterior insula, temporal gyrus, and occipital lobe. Moreover, they observed positive associations between activity in dorsomedial prefrontal cortex, left inferior parietal lobe, and left temporal gyrus and stress-induced anxiety in women but negative associations in men. They propose that women and men use different neural resources when experiencing stress-inducing anxiety and it could have implications for developing more effective treatments strategies tailored to each gender [41].

In last years, there is a new line of research about the influence of vasopressin and oxytocin brain systems in the regulation of social and anxiety-related behaviors and the different implications in women and men. In studies with rodents, sex differences are evident at prepuberal ages as seen in the sex-specific regulation of social recognition, social play, and anxiety by the vasopressin system. Moreover, the oxytocin system in humans and rodents alters brain activation, anxiety, and sociosexual motivation in sex-specific ways. For example, young adult women respond to intranasal oxytocin by a strengthening of resting-state amygdala-mPFC functional connectivity, an effect that was not seen in young adult men or older adult women. Vasopressin and oxytocin have been implicated in the pathophysiology and treatment of several social and emotional disorders, and these disorders often show an important sex bias in prevalence and treatment responses [42–44].

In another vein, during the last few years, it is being studied how epigenetics influences anxiety disorders. A review by Nieto et al. [45] indicates that although compared to animal studies there are fewer studies of anxiety in humans, examining the epigenetics of anxiety disorders may lead to a better knowledge of mechanisms and in this way help to find new treatment strategies. They conclude that although there are many gaps of knowledge, the majority of epigenetic variations identified

to date show that anxiety-like phenotypes involve genes that regulate HPA axis, neurotransmitter systems, and neuroplasticity.

DNA methylation studies have been done in adults with social anxiety disorder, anxiety symptoms, and panic disorder. According to a recent study comparing participants with anxious symptoms and controls, as determined by scores on the Hospital Anxiety and Depression Scale-Anxiety (HADS-A), anxious adults had significantly higher levels of global DNA methylation relative to non-anxious adults. Further, the expression of the DNA methyltransferases DNMT1/3A increases with the increasing HADS-A scores in the anxious cohort only [46]. In patients with panic disorder and social anxiety disorder, DNA hypomethylation was identified. Adults with social anxiety disorders showed oxytocin receptor (OXTR) DNA hypomethylation [47], while adults with panic disorders exhibited glutamate decarboxylase 1 (GAD1) DNA hypomethylation. Monoamine oxidase A (MAOA) hypomethylation was found in female with panic disorders but not in male [48].

#### 27.4.1 Sexual Hormones

For many years, the differences between the sexes and the role that the gonadal hormones played in these differences were studied by focusing exclusively on sexual conduct. Currently, apart from controversies, it is accepted that sexual differentiation implies diverse structural, chemical, and functional variants between the brain of the male and that of the female, which affect all the areas of the subject [39, 40]. With regard to differences in response to stress that are seen in both sexes, the possible influence of sexual hormones has been described [49]. It has been reported that estrogens could influence the response to stress mediated by noradrenalin. These are important facilitators of the serotonergic response in humans [50]. Women of reproductive age are more vulnerable to developing anxiety disorders than men, between two to three times more. In fact, 17.5% of women compared with 9.5% of men suffered some kind of anxiety disorder during their lifetime, while 8.7% of women compared with 3.8% of men had suffered an anxiety disorder over the last year [51, 52].

If we also take into account that the changes introduced by reproductive hormones during the intrauterine phase and puberty, the menstrual cycle, pregnancy, and the menopause, clearly modify the cerebral structure and function, all of which suggest that sexual hormones play a deciding role in etiology and in the clinical manifestations of these pathological conditions [17, 53]. It has been speculated that a primary postpuberty effect of the gonadal hormones on the stimulation of the limbic system might predispose women to higher rates of anxiety and affective disorders [34].

To be precise, anxiety diminishes during pregnancy [54] and the luteal phase of the woman's menstrual cycle. A deterioration of the symptoms of many anxiety disorders following birth is observed and seems to indicate that progesterone may play an important role in the differences between sexes with regard to anxiety disorders. Sutter-Dallay et al. [55] observed that a quarter of women with an

anxiety disorder suffered a probability of depression during the postpartum period three times greater than the general population [55]. Similarly, it is noticeable that information existing about anxiety disorders in the menopause is scarce and a high level of prescription and self-medication of anxiolytics is observed at this stage of life [18].

Hormonal changes that occur during the menstrual cycle could also influence the anxiety symptomatology present in the context of a premenstrual dysphoric disorder, which is usually pronounced [56, 57], as well as in the context of anxiety disorders. It is known that anxiety disorders tend to deteriorate over the premenstrual period [58], when ovarian hormones are at their lowest level in the cycle.

Although many studies focus on estrogens, progesterone is also an important hormone related to pregnancy and the menstrual cycle. Women in a high progesterone state of their menstrual cycle had increased cortisol levels and better memory recall for negative images [59]. Progesterone has been shown to suppress the HPA axis in rats by converting it to its metabolite allopregnanolone which has anxiolytic properties [60]. Human imaging studies have been shown that allopregnanolone is associated with reduced amygdala response to aversive stimuli, supporting the anxiolytic role of this hormone [61]. Furthermore, allopregnanolone is a positive modulator at GABA-A receptors, and women with PTSD have altered GABA-A receptor sensitivity and reduced cerebroespinal fluid levels of allopregnanolone [62].

A recent review by Maeng and Milad [63] concludes that collecting data from studies of stress, fear, and sex hormones indicate that elevated sensitivity to stress and impaired extinction memory consolidation are associated with low estrogen levels in females and this could be related to vulnerability to psychopathology. They argue that stressful life experiences can disrupt fear extinction, a behavioral process that models the psychopathology of anxiety disorders, and this negative effect of stress can be further amplified during low levels of estrogen. They propose that because stress is a principal contributor to developing anxiety disorders, stress and fear mechanisms should be studied together.

Hsiao et al. [64] observed that a significant percentage of women with generalized anxiety disorder (GAD) and panic disorder (PD) together with the premenstrual disorder syndrome also suffered exacerbation of their symptomatology in the premenstrual phase, which we consider to be the possible influence of the hormonal cycle of a woman with anxiety symptoms. The exacerbation of the symptomatology in the premenstrual and follicular phase that women with GAD and associated premenstrual tension syndrome mention does not appear in the phase that only presents GAD [58].

The syndrome of premenstrual tension has been associated with anxiety disorders, especially with GAD and PD, with which on occasions a differential diagnosis is proposed [65]. But a separate chapter in the same book is dedicated to the dysphoric premenstrual syndrome; therefore, we do not analyze the possible analogies and common influences of the two disorders here. We tackle changes related to the gonadal influence in each subtype of anxiety disorder in subsequent epilogues that will deal with the differential characteristics between the two sexes in each corresponding entity.

## 27.5 Subtypes of Anxiety Disorders

The diagnostic categorical criteria usually used are subject to continual modifications in the different versions of international classifications such as the DSM. The DSM-5 [66] comprises disorders that share features of excessive fear and anxiety and related behavioral disturbances. Fear is the emotional response to real or perceived imminent threat, whereas anxiety is anticipation of future threat.

Anxiety disorders in DSM-5 are arranged developmentally, with disorders sequenced according to the typical age at onset. DSM-5 contains specific phobia, social anxiety disorder (social phobia), panic disorder, agoraphobia without a history of panic disorder, generalized anxiety disorder, anxiety disorder due to a medical disease, anxiety disorder induced by substances, and unspecified anxiety disorder [66]. This edition also includes separation anxiety disorder and selective mutism. Obsessive-compulsive disorder (OCD) and related disorders are in another section of DSM-5 classification.

We try hereby to explain the different subtypes, emphasizing the anxiety disorders that from a gender perspective deserve particular attention.

## 27.5.1 Separation Anxiety Disorder

The individual with separation anxiety disorder is fearful or anxious about separation from attachment figures to a degree that is developmentally inappropriate. There is persistent fear or anxiety about harm coming to attachment figures and events that could lead to loss of separation from attachment figures and reluctance to be parted from attachment figures, as well as nightmares and physical symptoms of distress. Although the symptoms often develop in childhood, they can be expressed throughout adulthood as well [66].

The age-at-onset criterion for separation anxiety disorders was removed in DSM-5. According to a study by Silove et al., lifetime separation anxiety disorder prevalence is 4.8%, with 43.1% of lifetime onset occurring after 18 years. They identify like predictors of lifetime separation anxiety disorder female gender (1.3:1), retrospectively reported childhood adversities, and lifetime traumatic events [67].

#### 27.5.2 Selective Mutism

Selective mutism is characterized by a consistent failure to speak in social situations where there is an expectation to speak (e.g., school), even though the individual speaks in other situations. The failure to speak has significant consequences for achievement in academic or occupational settings or otherwise interferes with normal social communication [66].

Selective mutism is a disorder that typically appears in early childhood. In the DSM-5, it is now classified as an anxiety disorder. The etiopathogenesis of selective mutism is multifactorial, including genetic, environmental, and

developmental factors [68]. Selective mutism has a prevalence rate around 0.71% [69] and is more prevalent among girls than boys (1.5:1) according a 2000 study [70].

#### 27.5.3 Phobia

The word phobia derives from the Greek term *phobos*, which means fear, panic, or terror. The term social phobia was introduced by Janet in 1903 and acquired its own identity with the classification of Marks in 1969 [22]. Anxiety acquired a core importance as the pathogenic origin of the phobic disorder, whose presence contributes to its self-perpetuation. According to Lepine and Chignon [71], the diagnosis of this entity requires the presence of the feared object and situation; anxious manifestations, which, as we say, are of special relevance; an anti-phobic reaction; and difficulties in functioning well for the sufferer.

Although there is a predominance of phobic disorders in the female, there appear to be differences according to the type of phobia. These differences are explained by the diverse mechanisms that could have an influence such as ideological factors, the social facilitation of aggressive behavior and courage in the male, and the greater tendency in men to not admit fear, because it damages self-esteem and social consideration. The DSM-5 [66] distinguishes social phobia, specific phobia, and agoraphobia as the main entities that make up phobic disorders in general.

## 27.5.4 Social Anxiety Disorder (Social Phobia)

We can briefly sum up social phobia as an acute and persistent fear of one or more social situations or events in public in which the subject feels exposed to persons that do not belong to the family environment or to possible assessment by others [13].

We distinguish between social phobia and generalized (referring to most social situations) and nongeneralized social phobia, where the phobia is particularly about speaking in public; the DSM-5 specifies performance only: if the fear is restricted to speaking or performing in public. Although this classification may seem not to be definitive, there are those who defend the idea that it is a continuum of gravity that deals with different aspects of a same spectrum of social anxiety [71]. According to other authors, the distinction between social phobia and personality disorder by avoidance is not even conclusive, postulating the fact that they form part of the same psychopathological context [72–74].

According to DSM-5 [66], hypersensitivity to criticism of the assessment of others, the difficulty in self-affirmation, low self-esteem, and feelings of inferiority are some of the characteristics of this type of phobia.

Over recent years, numerous publications on this subject have given an idea of the growing attention that this entity receives [75, 76], partly because of great

comorbidity, 70–80% with other psychiatric disorders, above all from the anxiety series, depression, substance abuse, panic disorders, and personality disorders [77]. Yonkers et al. [78] observed a greater tendency toward substance abuse in men; women, on the other hand, tended to present agoraphobia [78]. In the same study, they described how women, who had backgrounds of attempted suicide and a worse premorbid adjustment, had a worse prognosis.

It has been observed that diagnosed women usually present deterioration in symptoms in the premenstrual phase of the cycle, the same as pregnant women, who exhibit an increase in social anxiety levels during the first 3 months of pregnancy [79].

It appears that several authors agree that both environmental and genetic factors influence social phobia [13, 80, 81]. Psychosocially, childhood environmental factors have been reported (imitation of parental phobia conduct, overprotection, anxious parents, etc.); conflicts during adulthood are also identified as contributing to their appearance (fundamentally traumatic situations) [13, 82]. Personality in general shows characteristics of introversion (shyness and dependence), which some authors defend, and is linked equally to the evasive personality disorder [13, 72]. Other environmental factors that we could mention are the lack of social support, low educational level, and single status [13, 83].

A 2017 review concludes that women are more likely to have social anxiety disorder and also report greater clinical severity as revealed by more severe symptoms, higher levels of social fears, and a greater number of social fears. According to this review, the course of SAD is similar for men and women, without gender differences in the onset and the chronicity of the disorder. They conclude that despite the gender differences found in their review in several domains of SAD, it's important to continue deepening in these differences to facilitate more sensitive and specific treatment for men and women with SAD [84].

A recent study by Asher and Aderka [85] based on data from the US National Comorbidity Survey Replication (NCS-R) showed gender differences in social anxiety disorder. In their study, women were more likely than men to suffer from lifetime and 12-month social anxiety disorder (SAD). Among participants with 12-month SAD, women were more likely to be divorced, while men were more likely to have been never married. Men with 12-month SAD were more likely to be employed compared with women. Among participants with 12-month SAD, men were more likely than women to have alcohol abuse and dependence, drug abuse and dependence, and conduct disorder. Women were more likely than men to have specific phobia, generalized anxiety disorder (GAD), and posttraumatic stress disorder (PTSD). They didn't find statistical significance for mood disorders and panic disorder, in contrast to previous studies that found significant differences [86]. The authors propose that mood disorders typically follow the onset of SAD, so it is more difficult to detect these disorders among subjects with 12-month SAD than individuals with lifetime SAD. In their study, women are more likely to have a more several clinical presentation of SAD and to have a greater subjective distress.

## 27.5.5 Specific Phobia

These are acute and persistently irrational, excessive, out of control fears and occur in the presence or anticipation of specific objects or situations that the subject tries to avoid [13].

Specific phobias are considered to constitute the third most frequent psychiatric disorder, with a prevalence throughout a lifetime of 12.5%. Women have a greater tendency to present social phobia [13, 87]. The age at appearance is very early; it is considered one of the most precocious psychiatric pathological conditions, with an average onset around the age of 7, according to studies [88]. Women have a greater frequency of a phobia of animals and men of heights (acrophobia) [89]. Other studies provide different data. According to a Korean study by Park et al. [90], the lifetime prevalence rate of specific phobia is 3.8%. Life time prevalence rates of animal, natural environment, blood-injection injury, and situational phobia were 2.0%, 1.4%, 0.5%, and 0.4%, respectively. They found that the most widely prevalent phobia was fear of animals in women and fear of natural environments in men. The mean age of onset for animal, natural environment, and blood-injection injury phobias was in childhood and adolescence (12.7, 17.4, and 15.9 years, respectively), while for the situational phobias, the age of onset was in young adulthood (26.3 years).

Comorbidity in social phobia is relatively frequent; the most accredited disorders are social phobia, substance abuse, and depression [91]. Among women, comorbidity has been reported in 28.3% of anxiety disorders, 13.7% of affective disorders, 3.2% of somatoform disorders, 2.2% of substance-related disorders, and 4% of food disorders [89].

With regard to etiopathogenesis, it seems that the genetic load could have a greater influence in men; among women societal family factors have had greater relevance [92]. Genetic polymorphism of catechol-O-methyltransferase (COMT) has been linked to specific phobia [93]. However, there is not enough evidence about the heritability of specific phobias and fears, so additional research is needed [94].

#### 27.5.6 Panic Disorder

Panic (angustia in Spanish, angst in English (borrowed from the German), and the verb ängstigen in German) is defined by an affliction, distress, or oppressive fear without a precise cause. Etymologically, it shares the same Greek root as the verb anjo, which actively means to press, asphyxiate, while in its passive sense, it means to drown, with other terms such as anjone', ago'n, agoniates, angere, and angustus [95]. Panic disorder appears in sudden episodes, during the daytime or at night, characterized by a neurovegetative discharge, intense moral panic, frequent feeling of impending death, anxiety, and eventual psychomotor unrest, with a duration of approximately 15–30 min [13].

It is not our aim to carry out a nosographic revision of the term, although it is interesting to mention that several of the symptoms previously mentioned were described in the twentieth century BC, in the Kahun Papyrus, attributing it to the uterus. In addition, Hippocrates named these anxious manifestations, presented in paroxysmal form, under the term "hysteria," explaining them with mechanistic reasoning, where the uterus is displaced by the body pressing on the chest and the throat, a fact that was linked to unsatisfactory sexual relations [95].

Life prevalence is estimated to be 4.7%; epidemiological studies speak of an incidence that is twice as high among women as among men [51, 87, 96, 97]. Marked differences have been described in the age at presentation of the panic disorder; it is estimated that in women it appears between the ages of 25 and 34, and in men the onset is described as being later at around 35–44 [98].

With regard to the clinical aspects, women speak of more psychological symptoms of the panic disorder with greater frequency [99]. Among women anticipatory anxiety is more frequent [98], whereas men exhibit greater worries at the somatic clinic [100]. Somatic manifestations also show differences: in women the presence of respiratory symptoms and dizziness is more frequent [101], whereas among men the most frequent are gastrointestinal symptoms [102]. According to a recent study, female with panic disorder reported most stressful life events including separation issues, physical illness, and pregnancy-related problems than males. They also reported lower levels of help-seeking coping strategies and higher levels of agoraphobia in symptom severity than men [103].

A special mention deserves pregnant and postpartum women. Panic attacks in these women are similar in presentation to panic attacks in nonpregnant women. Panic disorder in mothers is commonly associated with shame and guilt and can worsen the self-esteem and confidence for the care of the baby. Furthermore, women with panic disorder have increased perinatal medical checks and emergency room visits [104].

Comorbidity of panic disorder with other psychiatric pathological conditions of the anxiety spectrum (OCD, GAD, social phobia), mood disorders (depression and dysthymia), impulse control, and substance abuse exists [105, 106]. The course of the disease is chronic, with periods of variable remission [107, 108]; women have a worse evolution of the disease, a factor of bad prognosis being identified for women [109]. Among women higher rates of relapse are observed [110, 111], and it is a more disabling pathological condition [96, 106]. High rates of cardiovascular mortality and suicide have been detected among individuals with panic disorder [112]; suicide has been related to depression, substance abuse, and personality disorders [113]. In women suicide rates are three times higher than those of men [114]. In women with panic disorder, a higher rate of smoking has been observed at the start and during the disease than for men [115].

With regard to etiology, panic disorder has been related to a background of trauma during infancy; this relation, which is also present in other anxiety disorders, is more intense in panic disorder [116].

A greater predisposition of women to traumatic events that evoke anxiety disorders has been mentioned, such as sexual abuse, domestic violence, and poverty [22].

The debate on genetic influence in panic disorder is still open [117]. Genetic polymorphism of the COMT has been linked (Val158met), with panic disorder among women. Recently, this polymorphism has been related to a greater activation of the amygdala and prefrontal cortex in panic disorder [118, 119]. Other genes have been studied, but a recent meta-analysis indicates that candidate gene studies have been largely unsuccessful in identifying risk alleles for panic disorder [120]. With regard to COMT Val158Met, a 2018 study research the interplay between it, childhood adversity and sex in predicting panic pathology. They found that childhood adversity predicted panic disorders in carriers of the Val/Met or Met/Met phenotype. On the other hand, emotional abuse predicted panic attacks among men carriers of Val/Val genotype and women carriers of the Val/Met or Met/Met genotype. It is concluded that it could be interesting to explore targeted early interventions to prevent the onset of panic after childhood adversities, especially in women carriers of the Val/Met or Met/Met genotype [121].

Gorman et al. proposed a neuroanatomical model of panic disorder which hypothesized that fear and anxiety responses are mediated by a "fear network" which centered in the amygdala and involves the hippocampus, thalamus, hypothalamus, periaqueductal gray region, and locus coeruleus [122]. Nevertheless, a recent review proposes that this "fear network" may be bigger, including brainstem, anterior and midcingulate cortex, and insula and lateral as well as medial parts of the prefrontal cortex [123]. Other neuroimaging studies identify that men show a higher reduction in the right amygdala and in the bilateral insular cortex, whereas women showed a more marked decrease in the right temporal lobe, in the dorsolateral prefrontal and ventrolateral cortex, in the parietal cortex, and in the thalamus [124].

In women, susceptibility to panic increases during the late luteal phase of the menstrual cycle, when progesterone secretion is in rapid decline [125]. It is known that the progesterone metabolites may have anxiolytic effects owing to their agonist action on  $\gamma$ -aminobutyric acid/benzodiazepine (GABA/BZD) receptors [126], by which a possible alteration in this complex receptor could explain the factors that link panic responses, reproductive female cycle, and premenstrual tension (PMT) [102]. In particular, women with panic disorder presented a reduction in receptor sensibility that was not observed among men [127]. It has been observed that women with PMT tend to have panic following exposure to different panicogenic agents such as lactate,  $CO_2$ , or the antagonists of cholecystokinin [128].

# 27.5.7 Agoraphobia

The DSM-4 subordinates this entity to panic disorder, although it contemplates agoraphobia without a panic crisis. Agoraphobia is diagnosed in DSM-5 irrespective of the presence of panic disorder. If an individual's presentation meets criteria for panic disorder and agoraphobia, both diagnoses should be assigned [66].

Agoraphobia is defined as "irrational fear of places or public places," although this extends to the fear of not being able to escape immediately from a place in which it is difficult to ask for help. Both entities, panic disorder with or without agoraphobia according to NCS-R 2007, are more frequent among women [87].

Expulsion from public places condemns women to separate spaces; this provokes that their approach to a masculine place, through a socially imposed agoraphobia, leads women to volunteer and exclude themselves from the *agora* [4].

The division of social and socioeconomic roles between the sexes may lead to women not being employed, having greater representation in the private sphere, and carrying out the main tasks within the home [22].

Bekker et al. [7, 22, 37] refer to the enumeration of several characteristics that predispose to a significant fear of agoraphobic situations in women such as the lack of affirmation of their own identity, not having acquired the necessary abilities for anonymous public situations, a poor adjustment to existing norms, etc.

Latas et al. [129] reported a greater subjective perception in women of agoraphobic avoidance; men, on the other hand, were more liable to anticipate the physical consequences of panic attacks. It has been observed that the lower rate of recovery between panic crises increases the severity of the disorder and facilitates the appearance of agoraphobia [130].

According to various studies 3–4% prevalence among men has been observed compared with 7–9% among women; at the same time, a greater severity of the condition for women has been observed, as well as a worse quality of life [131, 132].

Comorbidity between panic disorder and agoraphobia moves within the range 22.5–58.2% [96]. In both entities, there is comorbidity with disorders such as depression, dysthymia, generalized anxiety, social phobia, and OCD [106]. In panic disorder with agoraphobia, a greater degree of association has been identified with the following entities: bipolar disorder I, specific phobia, generalized anxiety, personality disorders, and substance dependence [133]. Alcohol abuse is more frequent in men, and in women there is a greater tendency toward depression [106, 132, 134]. Alcohol abuse seems to be a male disguising strategy. By analogy, the use of tranquilizers represents a female disguising strategy [22]. Moreover, it seems that suicidal ideation is frequent among patients suffering from panic disorder with or without agoraphobia, without gender differences. According to a recent study in primary care patients, comorbid depression diagnosis and depression severity are significant predictors of suicidal ideation. However, patients suffering from panic disorder with agoraphobia are not more likely to suffer from suicidal ideation than patients suffering panic disorder without agoraphobia [135].

## 27.5.8 Generalized Anxiety Disorder

The DSM-4 and DSM-5 define the generalized anxiety disorder as excessive anxiety and worry about different events or activities during most days, over a period of at least 6 months. The worrying is difficult to control and is associated with somatic symptoms such as muscular tension, irritability, and sleep and worry disorders. It excludes the presence of Axis I disorder and is neither caused by consumption of

substances nor by organic disease and implies a great deterioration in the life of the individual [136].

The nosological situation of this disorder is subject to criticism, as well as its neurobiological and therapeutic bases [13, 137]. Initially, the DSM-3-R included the demand that the anxiety symptomatology must be of at least 1-month duration as a diagnostic element, a prerequisite that was modified in the DSM-4, after which it was proposed that the symptomatology should be present continuously over 6 months. Therefore, when generalized anxiety disorder prevalence figures are examined, they show great variability, which makes it necessary to consider the time criteria employed to characterize the disease. Now the DSM-5 also proposes changes with regard to time, where the symptomatology is reduced to period of 3 months.

A different focus for individuals with a different degree of affectation of the anxiety disorder does not sustain the idea that they all should be encompassed under the same diagnostic category. In fact, the patient who does not have very intense clinical symptoms could benefit from a "step-by-step" diagnosis [138].

A reduction in the symptomatology duration of GAD may contribute to a greater difficulty between the distinction of the latter from other situations such as maladaptive and nonpathological anxiety disorders. Thus, it loses its category as a chronic disease [139].

A lifetime prevalence of 5.7% of GAD is estimated, which is twice as frequent in women, appearing at around the start of the second decade of life [87, 140]. However, other studies provide lifetime prevalence rates between 6.2% and 2.8%, which are highly variable [141, 142]. Although this diagnosis is not very frequent in clinical practice, the discrepancy is attributed to the lack of attention given to this diagnosis, secondary to scarce recognition shown by practitioners [143, 144]. Some authors doubt the diagnosis of this clinical condition, as many times GAD coexists with other conditions as in Axis I [145]. Generalized anxiety disorder has been labeled a "comorbid" disease [146].

Some authors defend that excessive worry (pathological) is a vague term, and more clarity and rigor is required to define it. What does it really mean? Most women have excessive worry related to social aspects: social inequality, glass ceiling, domestic violence, lower salaries in the same jobs within the labor market, etc.

The amount of time dedicated to domestic work is the most evident element of gender inequality in the use of daily time. The increasing participation of women in paid work has modified the gender division of domestic tasks; nonetheless, women still carry the heaviest load in terms of working hours spent on care work. Women have less free time because they spend more time in domestic and childcare. This brings psychological distress, and it can explain per se the "excessive worry" they are involved in from our point of view in some way. What is normal or healthy is very close to what is unhealthy or abnormal. In some way the disease does not exist until we have accorded its existence, when we name it, we perceive it, and we act on it, from our viewpoint.

To describe excessive worry as nervous expectation is not sufficient to distinguish it from normal worry. Intolerance of uncertainty is not specific for pathological worry in GAD, as it has also been associated with the symptoms of obsessive-compulsive disorder and depression [147, 148].

The lifetime prevalence rate is 4% in men, compared with 7% in women [87, 131, 132]. This divergence between the sexes begins at an early age and continues into adolescence and adulthood [149]. Nevertheless, no gender differences have been reported in age-of-onset [150]. For many patients with anxiety disorders, it may last years until they are referred to a specialist. According to a survey among psychiatrist in different European countries, 45% of patients suffered symptoms of generalized anxiety disorder for 2 years or more before they were diagnosed with the disorder [151].

The clinical course of GAD is usually the same in men as in women, as is the risk of remission and relapses [152]; women present greater associated comorbidity [153].

The prevalence of personality disorders from clusters B and C, poor interpersonal relationships, and comorbidity with another psychiatric pathology are factors that are related to a limited remission of the symptomatology [154].

Very frequently, the comorbidity of depression is accompanied by anxiety disorders, especially with GAD, which could lead us to question the primacy of depression or anxiety in women [34]. A recent European multicenter study that investigate the association between major depressive disorder and comorbid anxiety disorders concludes that generalized anxiety disorder is the anxiety disorder most linked to major depressive disorder [155, 156].

A dimensional relationship between depression and GAD has been proposed; those who support this idea based their belief on multiple suggestions that speak in favor of both entities presenting with a greater frequency based on personality in which "neuroticism" predominates [157].

With regard to treatment, a 2018 meta-analytic review provides that benzodiazepines are more efficacious than antidepressants for treating GAD symptoms, especially for the initial treatment phase. The authors suggest that the combined use of antidepressants and benzodiazepines could produce the greatest risk-benefit ratio of both medications at the beginning of the treatment [158]. Moreover, cognitive behavioral therapy (CBT) is a first-line intervention for GAP, which has been shown to have better results than placebo [159].

# 27.5.9 Substance-/Medication-Induced Anxiety Disorder and Anxiety Due to Another Medical Condition

Substance-/medication-induced anxiety disorder involves anxiety due to substance intoxication or withdrawal or to a medication treatment. In anxiety disorder due to another medical condition, anxiety symptoms are the physiological consequences of the other medical condition [66].

## 27.5.10 Other Specified Anxiety Disorder

This category applies in DSM-5 to presentations in which symptoms characteristic of an anxiety cause significant distress. Examples of presentations that can be included are limited symptom attacks, generalized anxiety occurring more days than not, *khya'i cap* (wind attacks), and *ataque de nervios* (attack of nerves) [66].

## 27.5.11 Obsessive-Compulsive Disorder

In DSM-5 TR, OCD was encompassed in the spectrum of panic disorders; a reclassification of this diagnosis entity into a new dimension has been included in the recent DSM-5. However, we will try to describe the differential aspects between the two genders, regardless of whether or not their future conceptualization should remain outside the field of anxiety disorders. The main objective is gender differences in OCD.

In DSM-5 OCD and related disorders that are included are body dysmorphic disorder, hoarding disorder, trichotillomania (hair pulling disorder), excoriation (skin-picking) disorder, substance-/medication-induced obsessive-compulsive and related disorder, and unspecified obsessive-compulsive and related disorder (e.g., body-focused repetitive behavior disorder, obsessional jealousy) [66].

According to Lochner et al. [160], some studies do not show differences with regard to sex in the prevalence rates of OCD, whereas others, such as those carried out by the CSN-R 2007, report rates of prevalence of 2.3% with a probability twice as high for women as for men; nevertheless, numerous studies have reported differences in age at the appearance of symptoms, where the early onset of symptoms is more frequent among men, a high percentage of whom started before the age of 25, while among women the age at onset is before the age of 20, and the acute onset and episodic course of the disease are frequent [161]. Between 13% and 36% of women with obsessive disease refer to the onset during the pregnancy or postpartum period; 30% suffered deterioration of the disease during the postpartum period [11].

Differences have also been described in the course of the disease and response to treatment [162]. However, more similarities than differences have been described in the clinical condition of the disorder [163]. With regard to symptoms, women show more harmful compulsions regarding cleanliness and checking things, while men present more nervous tics, a greater severity of the symptoms in general, and a worse prognosis [160]. Other studies show that men compared to women are more likely to have checking and repeating compulsion, whereas women compared to men are more likely to have a higher frequency of fear of contamination [164].

Sexual repression in female subjectivity history can be avoided in the construction of this disorder. Most religions have focused on the repression of female sexuality and polarization.

In OCD over half the women reported symptoms relating to the baby during the perinatal period, with obsessive thoughts of harming their child, these feelings becoming more intense following birth [165]; in fact, it was concluded that in

20–30% of cases, the deterioration occurs in the postpartum period [50], and it has also been observed that this fact would increase the risk of postpartum depression among women [166].

In a not insignificant number of women with OCD, their condition was abruptly initiated in the immediate postpartum period, which was attributed to serotonergic dysfunction, causing a manifest drop in ovarian hormones over this period [167].

The age at onset of the earliest symptoms is associated with nervous tics, anxiety, food, somatoform, and impulse control disorders; a prolonged duration of the disease is associated with a lower number of nervous tics with depressive comorbid disorder [168, 169].

Women with OCD show a greater tendency to be married and have children, and there is also a greater tendency to have a background of food disorders and depression, while men present anxious personality characteristics [161, 170]. Women are more prone to presenting anxiety and food and impulse control disorders [169].

Some women reported stressful symptoms with more intensity, and the course of the disease for them is more difficult and has a worse result than for men [160, 161]. In addition, there is a greater frequency of sexual abuse during childhood [160].

With regard to the associated comorbidity of the disorder, among women the appearance of food behavior disorders, depression, or panic crises is more frequent [50], while among men phobias and nervous tics are more frequent [161].

The course of the disease tends toward chronicity [171]. Individuals who present OCD show a deterioration in their quality of life, and the severity of the clinical condition is fundamentally related to the intensity of obsessive symptoms [172].

Concrete changes have been observed in the symptoms of women with OCD, both in the premenstrual/menstrual phase and following pregnancy and menopause; the interrelation between cyclical menstrual/reproductive changes and relapses and fluctuations in the symptoms of this disorder is confirmed [160]. Women with OCD refer to a deterioration in symptomatology during the menopause and premenstrual phase [165, 166, 173]. A greater prevalence of OCD in women was reported in the prenatal and postpartum period than in the population in general [174].

OCD is a heterogeneous disorder, and gender is an important factor mediating this heterogeneity. According to an Indian study that investigates gender differences in OCD, males who suffered this disorder had more years of education, a higher rate of checking compulsions, and comorbid alcohol and cannabis use disorder. On the other hand, women were more likely to be married and have more commonly reported precipitating factors and had a higher rate of hoarding compulsions and comorbid agoraphobia [175]. Raines et al. examined the associations between sex and obsessive-compulsive symptom dimensions using the Dimensional Obsessive-Compulsive Scale (DOCS). Contrary to their initial hypothesis, they did not found gender differences in means in contrast with previous studies. They proposed that this disparate could be due to other researches have been used less reliable scales. Nevertheless, the authors found sex differences when examining relations between OCD dimensions, which were stronger in males compared to females concluding the common perception of OCD as a heterogeneous disorder may hold for females more so than for males [176].

In another vein, there have been controversial results in different researches on the association between HTR1A polymorphisms and OCD (rs10042486, C-1019G, and Gly272Asp). Alizadeh et al. [177] found that the rs10042486 polymorphism CT genotype is more likely to be found in patients with OCD, especially in males. Moreover, evidence for the association of C-1019G was observed in the familiar form of the disease, especially in females. Nevertheless, they did not found significant association between genotype frequencies with treatment response.

#### 27.6 Treatment

Throughout the chapter we have discussed gender differences in anxiety disorders. Although there is enough evidence about the existence of these differences, publications often continue to neglect sex-based considerations and analyses in the studies. In 2014, an article was published announcing that all National Institutes of Health-funded research will be required to consider sex influences [178]. According to Cahill, behind this event "is the rapidly burgeoning weight of evidence proving that sex matters in different ways, from the level of the intact human down to the level of ion-channel function, and everywhere in between" [179]. It is also in treatment.

Women tend to present higher concentrations of psychotropic drugs [180]; this makes it interesting to carry out a general vision of the differential characteristics of pharmacological treatment, where the joint use of benzodiazepines and antidepressants for all anxiety disorders is widespread. In this section we will try to explain the distinctive characteristics with regard to metabolization and differential response to treatment or factors that influence it; subsequently, in each space reserved to analyze each anxiety disorder, reference will be made, when considered suitable, to the particular differences described for each disorder in question.

Women have rates of anxiolytic prescription that are twice as high as men, despite not being diagnosed with an anxiety disorder; in fact the diagnosis probably passes unnoticed for a long period of time during which the symptoms are patent [181, 182].

Studies suggest a lower hepatic metabolization of benzodiazepines, which are thinned by combining with lorazepam and oxazepam; these differences have not been reported for oxidative metabolization of benzodiazepines such as diazepam. It has been reported how women who suspended contraceptive treatment and who consumed these drugs in combination with benzodiazepines underwent deterioration in their cognitive performance and slowing down of the psychomotor processes. Thus, oral contraceptives could produce a reduction in the hepatic metabolism of benzodiazepines [183].

Some antidepressants may present oscillations in plasma levels through the menstrual cycle of the woman; in the luteal phase, a reduction in plasma values of desipramine and trazodone has been described [184]. Various studies have reported higher plasma levels for imipramine among women than men; a lower rate of hepatic thinning for clomipramine has also been determined, as well as amitriptyline, nortriptyline, and desipramine. These drugs, which belong to the tricyclics group and whose efficiency with anxiety disorders is proven, effect an increase in

plasma levels among women; this is seen following the combined use of oral contraceptives [185].

With regard to ISRS, higher concentrations have been observed among women for fluvoxamine and sertraline, which could explain the higher incidence of diarrhea with the use of the latter among women. Differences have been seen in the metabolism of trazodone, where, in a sample that compares women and men of an advanced age, hepatic thinning among women is lower.

The overall assessment that both pharmacological therapy and cognitive behavioral therapy (CBT) contribute to improvement of anxiety disorders seems to be effective for women and men. However, there is a remarkable lack of information regarding the sex-specific effects, not to mention the gender-specific effects, of treatments.

Regrettably, the available sex-specific studies of psychosocial treatment are lacking in at least two respects. From a gender point of view, they lack a thorough reflection on possible gender bias in sampling procedures, measurement, and analysis, and they disregard the gender-specific context. From a treatment research point of view, they do not meet one of the criteria for inclusion in a meta-analysis: that of being a randomized controlled trial. Moreover, most of the available meta-analyses appear to fail to systematically consider the sex distribution of the studies included, much less the calculation of possible sex differences in effect sizes [22].

Butler et al. [186] highlighted this deficiency in their review of meta-analysis. Butler also mentioned inattention to possible moderator variables (gender differences) as a frequent limitation of the meta-analysis procedure.

#### 27.7 Conclusions

Gender and social, cultural, and economic factors affect health. Women have a substantially higher risk of developing lifetime anxiety disorders compared with men. In addition, research evidence has generally observed an increased symptom severity, chronic course, and functional impairment in women with anxiety disorders in comparison to men. However, the reasons for the increased risk in developing an anxiety disorder in women are still unknown and have yet to be adequately investigated including a gender perspective. Not only genetic factors and female reproductive hormones may play important roles in the expression of these gender differences but sex and gender affect who we are, what we do, and how we are treated. Evidences of gender differences in treatment response to different anxiety disorders are varying and remain largely inconclusive. Future research in gender perspective is needed to do good science.

#### References

 Phillips KA, First MB. Introduction. In: Narrow WE, First MB, Sirovatka PJ, Regier DA, editors. Diary research for DSM-V. Considerations on the age and gender in psychiatric diagnosis. Barcelona: Elsevier Masson; 2009. p. 3–6.

2. Wisner KL, Dolan-Sewell R. Why is gender important? In: Regier DA, editor. Considerations on the age and gender in psychiatric diagnosis. Diary research for DSM-V. Barcelona: Elsevier Masson; 2009. p. 7–17.

- 3. WHO. Women's mental health: an evidence based review. Report on the world health; 2000.
- 4. Bourdieu P. Masculine domination. Barcelona: Anagrama; 2000.
- 5. MacCormack C, Strathern M. Nature, culture and gender. New York: Routledge; 1990.
- Strathern M. An anthropological perspective. In: Harris O, Young K, editors. Feminist anthropology. Barcelona: Anagrama; 1979.
- Wasserman GA, McReynolds LS, Ko SJ, Laura M. Gender differences in psychiatric disorders at juvenile probation intake. Am J Public Health. 2005;95:131–7.
- Robins LN, Helzer JE, Weissman NM, Orvaschel H, et al. Lifetime prevalence of specific disorders in three sites. Arch Gen Psychiatry. 1984;41:949–58.
- 9. Linzer M, Spitzer R, Kroenke K, et al. Gender, quality of life, and mental disorders in primary care: results from the PRIME-MD 1000 study. Am J Med. 1996;101:526–33.
- Gamma A, Angst J. Concurrent psychiatric comorbidity and multimorbidity in a community study: gender differences and quality of life. Eur Arch Psychiatry Clin Neurosci. 2001;251(Suppl 2):S1143–6.
- 11. Cloitre M, Yonkers KA, Pealstein T, Aletmus M, Davidson KW, Pigott A. Women and anxiety disorders: implications for diagnosis and treatment. CNS Spectr. 2004;9(Suppl 8):S1–16.
- 12. Stein MB, et al. Childhood physical and sexual abuse in patients with anxiety disorders and in a community sample. Am J Psychiatry. 2004;153:275–7.
- Ballús-Creus C, Bernardo M, Bioque Alcazar M, et al. In: Vallejo Ruiloba J, editor. Introduction to psychopathology and psychiatry. 7th ed. Barcelona: Elsevier Masson; 2011.
- 14. Grant BF, Weissman MM. Gender and prevalence of psychiatric disorders. In: Narrow WE, First MB, Sirovatka PJ, Regier DA, editors. A research agenda for DSM5. Arlington, VA: American Psychiatric Publishing; 2007. p. 31–45.
- Eaton W, Kessler RC, Wittchen HV. Panic and panic disorder in the United States. Am J Psychiatry. 1994;151:413–20.
- McLean CP, Asnaani A, Litz BT, Hofmann SG. Gender differences in anxiety disorders: prevalence, course of illness, comorbidity and burden of illness. J Psychiatr Res. 2011;45(8):1027–35.
- 17. Altemus M. Neurobiology, sex and gender. In: Narrow WE, First MB, Sirovatka PJ, Regier DA, editors. Considerations on the age and gender in psychiatric diagnosis. Diary research for DSM-V. Barcelona: Elsevier Masson; 2009. p. 47–62.
- Forero J. Anxiety disorders. In: Gaviria S, Luna I, Corra E, editors. Climacteric. An integrative vision. Medellín: CES; 2003.
- Faravelli C, Alessandra Scarpato M, Castellini G, Lo Sauro C. Gender differences in depression and anxiety: the role of age. Psychiatry Res. 2013;210(3):1301–3.
- 20. Bekker MH. Agoraphobia and gender: a review. Clin Psychol Rev. 1996;16:129-46.
- 21. MacKinaw-Koons B, Vasey MW. Considering sex differences in anxiety and its disorders across life span: a construct-validation approach. Appl Prev Psychol. 2000;9:191–209.
- 22. Bekker M, van Mens-Verhulst J. Anxiety disorders: sex differences in prevalence, degree, and background, but gender-neutral treatment. Gend Med. 2007;4(Suppl B):S178–93.
- 23. Al-Ilssa I. The psychopathology of women. Englewood Cliffs, NJ: Prentice-Hall; 1980.
- Chambless DL, Goldstein AJ, editors. Agoraphobia. Multiple perspectives on theory and treatment. New York: Wiley; 1982.
- Fodor IG. The phobic syndrome in women. In: Franks V, Burtle V, editors. Women in therapy. New York: Brunner/Mazel; 1974.
- Gelfond M. Reconceptualizing agoraphobia: a case study of epidemiological bias in clinical research. Fem Psychol. 1991;1:247–62.
- Symonds A. Phobias after marriage. Women's declaration of dependence. Am J Psychoanal. 1971;31:14–152.
- 28. Wolfe BE. Gender ideology and phobias in women. In: Spatz Widom C, editor. Sex roles and psychopathology. New York, NY: Plenum; 1984. p. 51–72.

- Bekker MH. The development of an autonomy scale based on recent insights into gender identity. Eur J Pers. 1993;7:177–94.
- Chodorw NJ. The reproduction of mothering: psychoanalysis and the sociology of gender. Berkeley, CA: University of California Press; 1978.
- 31. Chodorw NJ. Feminism and psychoanalytic theory. Cambridge, MA: Pility Press; 1989.
- 32. Jordan JV, Kaplan AG, Miller JB, et al. Women's growth in connection: writings from the stone center. New York: Guildford; 1991.
- 33. Klose M, Jacobi F. Can gender differences in the prevalence of mental disorders be explained by sociodemographic factors? Arch Womens Ment Health. 2004;7:133–48.
- Nolen-Hoeksema S. Emotion regulation and psychopathology: the role of gender. Annu Rev Clin Psychol. 2012;8:161–87.
- 35. Hettema JM, Prescott CA, Myers JM, Neale MC, Kendler KS. The structure of genetic and environmental risk factors for anxiety disorders in men and women. Arch Gen Psychiatry. 2005;62:182–9.
- 36. Barlow DH. Behavioral and cognitive models of post-traumatic stress disorder. Sante Ment Que. 1996;21(1):129–44 [Review, 57 refs., French].
- Cahill L, Haier RJ, White NS, Fallon J, Kilpatrick L, et al. Sex-related difference in amygdale activity during emotionally influenced memory storage. Neurobiol Learn Mem. 2001;75:1–9.
- 38. Cahill L. Sex-and hemisphere-related influences on the neurobiology of emotionally influenced memory. Prog Neuropsychopharmacol Biol Psychiatry. 2003;27:1235–41.
- 39. Cahill L. Why sex matter for neuroscience. Nat Rev Neurosci. 2006;7:477-84.
- Cahill L. Brain sexual dimorphism. Sexual instinct. Tems 56: Sexual instinct. Sexual instinct. Res Sci. 2009;56:62–70.
- 41. Seo D, Ahluwalia A, Potenza MN, Sinha R. Gender differences in neuralcorrelates of stress-induced anxiety. J Neurosci Res. 2017;95(1–2):115–25.
- 42. Bredewold R, Veenema AH. Sex differences in the regulation of social and anxiety-related behaviors: insights from vasopressin and oxytocin brain systems. Curr Opin Neurobiol. 2018;49:132–40.
- 43. Ebner NC, Chen H, Porges E, Lin T, Fischer H, Feifel D, Cohen RA. Oxytocin's effect on resting-state functional connectivity varies by age and sex. Psychoneuroendocrinology. 2016;69:50–9.
- 44. Neumann ID, Landgraf R. Balance of brain oxytocin and vasopressin: implications for anxiety, depression, and social behaviors. Trends Neurosci. 2012;35(11):649–59.
- 45. Nieto SJ, Patriquin MA, Nielsen DA, Kosten TA. Don't worry; be informed about the epigenetics of anxiety. Pharmacol Biochem Behav. 2016;146–147:60–72.
- 46. Murphy TM, O'Donovan A, Mullins N, O'Farrelly C, McCann A, Malone K. Anxiety associated with higher levels of global DNA methylation and altered expression of epigenetic and interleukin-6 genes. Psychiatr Genet. 2015;25(2):71–8.
- 47. Ziegler C, Dannlowski U, Bräuer D, Stevens S, Laeger I, Wittmann H, et al. Oxytocin receptor gene methylation: converging multilevel evidence for a role in social anxiety. Neuropsychopharmacology. 2015;40(6):1528–38.
- 48. Domschke K, Tidow N, Schrempf M, Schwarte K, Klauke B, Reif A, et al. Epigenetic signature of panic disorder: a role of glutamate decarboxylase 1 (GAD1) DNA hypomethylation? Prog Neuropsychopharmacol Biol Psychiatry. 2013;46:189–96.
- 49. Mitev YA, Darwish M, Wolf SS, Holsboer F, Almeida OF, Patchev VK. Gender differences in the regulation of 3 alpha-hydroxysteroid dehydrogenase in rat brain and sensitivity to neurosteroid-mediated stress protection. Neuroscience. 2003;20:541–9.
- 50. Piggot TA. Gender differences in the epidemiology and treatment of anxiety disorders. J Clin Psychiatry. 1999;60(Suppl 18):S4–15.
- Alonso J, Angermeyer MC, Bernert S, Bruffaerts R, Brugha TS, Bryson H, et al. Prevalence of mental disorders in Europe: results from the European Study of the Epidemiology of Mental Disorders (ESEMED) project. Acta Psychiatr Scand Suppl. 2004;109(420):S21–7.
- Carrasco-Galán I, Espinar-Fellmann I. Anxiety disorders and gender. Mind Brain. 2008;31:12–21.

53. Horst GJ, Wichmann R, Gerrits M, Westenbroek C, Lin Y. Sex differences in stress responses: focus on ovarian hormones. Physiol Behav. 2009;97:239–49.

- 54. Heron J, et al. The course of anxiety and depression through pregnancy and the postpartum in a community sample. J Affect Disord. 2004;80:65–73.
- 55. Sutter-Dallay AL, et al. Women with anxiety disorders during pregnancy are at increased risk of intense postnatal depressive symptoms: a prospective survey of the MATQUID cohort. Eur Psychiatry. 2004;19:459–63.
- 56. Johnson SR. The epidemiology and social impact of premenstrual symptoms. Clin Obstet Gynecol. 1987;30:369–84.
- 57. Woods NF, Most A, Dery GK. Prevalence of perimenstrual symptoms. Am J Public Health. 1982;72:1257–64.
- 58. McLeod D, Hoehn-Saric R, Foster G, Hipsley P. The influence of premenstrual syndrome on rating of anxiety in woman with generalized anxiety disorder. Acta Psychiatr Scand. 1993;88:248–51.
- 59. Felmingham K, Williams LM, Kemp AH, Liddell B, Falconer E, Peduto A, Bryant R. Neural responses to masked fear faces: sex differences and trauma exposure in posttraumatic stress disorder. J Abnorm Psychol. 2010;119(1):241–7.
- 60. Biggio G, Pisu MG, Biggio F, Serra M. Allopregnanolone modulation of HPA axis function in the adult rat. Psychopharmacology. 2014;231(17):3437–44.
- Sripada RK, Welsh RC, Marx CE, Liberzon I. The neurosteroids allopregnanolone and dehydroepiandrosterone modulate resting-state amygdala connectivity. Hum Brain Mapp. 2014;35(7):3249–61.
- 62. Möller AT, Bäckström T, Nyberg S, Söndergaard HP, Helström L. Women with PTSD have a changed sensitivity to GABA-A receptor active substances. Psychopharmacology. 2016;233(11):2025–33.
- 63. Maeng LY, Milad MR. Sex differences in anxiety disorders: Interactions between fear, stress, and gonadal hormones. Horm Behav. 2015;76:106–17.
- 64. Hsiao MC, et al. Premenstrual symptoms and premenstrual exacerbation in patients with psychiatric disorders. Psychiatry Clin Neurosci. 2004;58:186–90.
- 65. Freeman EW. Premenstrual syndrome and premenstrual dysphoric disorder: definitions and diagnosis. Psychoneuroendocrinology. 2003;28(Suppl 3):S25–37.
- 66. American Psychiatric Association. Diagnostic and statistical manual of mental disorders. 5th ed. Arlington, VA: American Psychiatric Association; 2013.
- 67. Silove D, Alonso J, Bromet E, Gruber M, Sampson N, Scott K, et al. Pediatric-onset and adult-onset separation anxiety disorder across countries in the world mental health survey. Am J Psychiatry. 2015;172(7):647–56. Epub 5 June 2015.
- 68. Hua A, Major N. Selective mutism. Curr Opin Pediatr. 2016;28(1):114-20.
- 69. Bergman RL, Piacentini J, McCracken JT. Prevalence and description of selective mutism in a school-based sample. J Am Acad Child Adolesc Psychiatry. 2002;41(8):938–46.
- Kristensen H. Selective mutism and comorbidity with developmental disorder/delay, anxiety disorder, and elimination disorder. J Am Acad Child Adolesc Psychiatry. 2000;39(2):249–56.
- 71. Sanchez PMG, Eguiluz UI. Thought content. In: Eguiluz UI, Segarra RE, editors. Introduction of the psychopathology, a integrative view. 3rd ed. Madrid: Panamericana; 2012. p. 98.
- 72. Reich J. The relationship of social phobia to avoidant personality disorder: a proposal to reclassify avoidant personality disorder based on clinical empirical findings. Eur Psychiatry. 2000;15:151–9.
- 73. Chambless D, Fydrich T, Rodebaugh T. Generalized social phobia and avoidant personality disorder: meaning the distinction or useless duplications? Depress Anxiety. 2006;0:1–12.
- 74. Hummelen B, Wilberg T, Pedersen G, Karterud S. The relationship between avoidant personality disorder and social phobia. Compr Psychiatry. 2007;48:348–56.
- 75. Cervera S, Roca M, Bobes J. Social phobia. Barcelona: Masson; 1998.
- 76. Heimberg R, Liebowitz M, Hope D, Scheneider F. Social phobia: diagnosis, prognosis and treatment. Barcelona: Martinez Roca; 2000.

- 77. Liebowitz M. Easing the burden of social anxiety disorder. J Clin Psychiatry. 2008;69(9):1485–96.
- 78. Yonkers KA, et al. An eight-year longitudinal comparison of clinical course and characteristics of social phobia among men and women. Psychiatr Serv. 2001;52:637–43.
- 79. Peer M, Soares C, Steiner M. The complex interrelationships of menstrual cyclicity and anxiety disorders. Psychiatr Times. 2008;25:1–14.
- 80. Chavina D, Stein M. Phenomenology of social phobia. In: Estein A, Hollander E, editors. Anxiety disorders treaty. Barcelona: Ars Medica; 2004.
- 81. Marcin M, Nemeroff C. The neurobiology of social anxiety disorder: the relevance of fear and anxiety. Acta Psychiatr Scand Suppl. 2003;108(417):S51–64.
- 82. Ballenger JC, Davidson JR, Lecrubier Y, Nutt DJ, Baldwin DS, Kasper S, et al. Consensus statement on panic disorder from the International Consensus Group on Depression and Anxiety. J Clin Psychiatry. 1998;59(Suppl 8):S47–54.
- 83. Furmark T. Social phobia: overview of community surveys. Acta Psychiatr Scand. 2000;105:84–93.
- 84. Asher M, Asnaani A, Aderka IM. Gender differences in social anxiety disorder: a review. Clin Psychol Rev. 2017;56:1–12.
- 85. Asher M, Aderka IM. Gender differences in social anxiety disorder. J Clin Psychol. 2018;74:1730–41.
- 86. Xu Y, Schneier F, Heimberg RG, Princisvalle K, Liebowitz MR, Wang S, et al. Gender differences in social anxiety disorder: results from the national epidemiologic sample on alcohol and related conditions. J Anxiety Disord. 2012;26(1):12–9.
- NCS-R. Lifetime prevalence of GSM-IV/WMH-CIDI disorders by de sex and cohort. NCS-Update. 17 June 2007.
- 88. Kessler RC, et al. Prevalence, severity, and comorbidity of 12-month DSM-IV disorder in the National Comorbidity Survey Replication. Arch Gen Psychiatry. 2005;62:617–27.
- 89. Becker ES, et al. Epidemiology of specific phobia subtypes: findings from the Dresden Mental Health Study. Eur Psychiatry. 2007;22:69–74.
- 90. Park S, Sohn JH, Hong JP, Chang SM, Lee YM, Jeon HJ, et al. Prevalence, correlates, and comorbidities of four DSM-IV specific phobia subtypes: results from the Korean Epidemiological Catchment Area study. Psychiatry Res. 2013;209(3):596–603.
- Wythilingun B, Stein D. Specific phobia. In: Stein D, editor. Clinical manual of anxiety disorders. Washington, DC: American Psychiatric Public; 2004.
- 92. Turk CL, et al. An investigation of gender differences in social phobia. J Anxiety Disord. 1998;12:209–23.
- 93. Hajudk A. A search for psychobiological determinants of anxiety disorders. Ann Acad Med Stetin. 2004;50:65–75.
- Van Houtem CM, Laine ML, Boomsma DI, Ligthart L, van Wijk AJ, De Jongh A. A review and meta-analysis of the heritability of specific phobia subtypes and corresponding fears. J Anxiety Disord. 2013;27(4):379–88.
- Burcazo JA, Caballero R, Cabranes JA, Montero I, Ruiz I. Gender and mental health. In: López-Ibor JJ, Leal C, Carbonell C, editors. Images of Spanish psychiatry, Chap. 34. 1st ed. Barcelona: Glosa; 2004. p. 423–33.
- 96. Weissman M, Bland R, Canino G, Faravelli C, et al. The cross-national epidemiology of panic disorder. Arch Gen Psychiatry. 1997;54(4):305–9.
- 97. Eaton W, Kramer M, Anthony JC. The incidence of specific DIS/DSM-III mental disorders: data from the NIMH Epidemiologic Catchment Area Program. Acta Psychiatr Scand. 1989;79(2):163–78.
- 98. Scheibe G, Albus M. Age at onset, precipitating events, sex distribution, and co-occurrence of anxiety disorders. Psychopathology. 1992;25:11–8.
- Sheikh JI, et al. Gender differences in panic disorder: findings from the National Comorbidity Survey. Am J Psychiatry. 2002;159:55–8.
- 100. Turgeon L, Marchand A, Dupuis G. Clinical features in panic disorder with agoraphobia: a comparison of men and women. J Anxiety Disord. 1998;12(6):539–42.

 Dick CL, et al. Epidemiology of psychiatric disorders in Edmonton. Panic disorder. Hum Mol Genet. 2004;8:621–4.

- 102. Leskin GA, Sheikh JI. Gender differences in panic disorder. Psychiatr Times. 2004;21:1-6.
- 103. Kim JE, Song IH, Lee SH. Gender differences of stressful life events, coping style, symptom severity, and health-related quality of life in patients with panic disorder. J Nerv Ment Dis. 2017;205(9):714–9.
- 104. Williams KE, Koleva H. Identification and treatment of peripartum anxiety disorders. Obstet Gynecol Clin N Am. 2018;45(3):469–81.
- 105. Kressler RC, et al. The epidemiology of panic attacks, panic disorder and agoraphobia in the National Comorbidity Survey Replication. Arch Gen Psychiatry. 2006;62:415–24.
- 106. Starcevic V, Djordjevic A, Latas M, Bogojevic G. Characteristics of agoraphobia in woman and men with panic disorder with agoraphobia. Depress Anxiety. 1998;8:8–13.
- Keller M, Hanks D. Course and outcome in panic disorder. Prog Neuropsychopharmacol Biol Psychiatry. 1993;17(4):551–70.
- 108. Keller M, Yonkers K, Warshaw M, Pratt LA, et al. Remission and relapse in subjects with panic disorder and panic with agoraphobia: a prospective short-interval naturalistic follow-up. J Nerv Ment Dis. 1994;182(5):290–6.
- 109. Kendler K, Walters E, Neale M, Kessler R, et al. The structure of genetic and environmental risk factors for six major psychiatric disorders in women. Phobia, generalized anxiety disorder, panic disorder, bulimia, major depression, and alcoholism. Arch Gen Psychiatry. 1995;52(5):374–83.
- 110. Yonkers KA, et al. Chronicity, relapse, and illness-course of panic disorder, social phobia, and generalized anxiety disorder: findings in men and women from 8 years of follow-up. Depress Anxiety. 2003;17:173–9.
- 111. Yonkers KA, Zlotnick C, Allsworth J, et al. Is the course of panic disorder the same in men and women? Am J Psychiatry. 1998;155:596–602.
- 112. Hagood J, De Leo D. Anxiety disorders and suicidal behavior: an update. Curr Opin Psychiatry. 2008;21:51–64.
- 113. Diaconu G, Turecki G. Panic disorder and suicidality: is comorbidity with depression the key? J Affect Disord. 2007;104(1–3):203–9.
- 114. Weissman M, Klerman G, Markowitz J, Quellette R. Suicidal ideation and suicide attempts in panic disorder and attacks. N Engl J Med. 1989;321:1209–14.
- 115. Pohl R, Yeragani VK, Balon R, Lycaki H, et al. Smoking in patients with panic disorder. Psychiatry Res. 1992;43(3):253–62.
- 116. Zlotnik C, et al. Childhood trauma, trauma in adulthood, and psychiatric diagnoses: results from a community sample. Compr Psychiatry. 2008;49:16316–9.
- 117. Kendler KS, et al. Panic syndromes in a population-based sample of male and female twins. Psychol Med. 2001;31:989–1000.
- 118. Domschke K, et al. Meta-analysis of COMT vall158met in panic disorder: ethnic heterogeneity and gender specificity. Am J Med Genet B Neuropsychiatr Genet. 2007;144B:667–3.
- 119. Domschke K, et al. Influence of the catechol-O-methyltransferase vall58met genotype on amygdala and prefrontal cortex emotional processing in panic disorder. Psychiatry Res. 2008;163:13–20.
- 120. Howe AS, Buttenschøn HN, Bani-Fatemi A, Maron E, Otowa T, Erhardt A, et al. Candidate genes in panic disorder: meta-analyses of 23 common variants in major anxiogenic pathways. Mol Psychiatry. 2016;21(5):665–79.
- 121. Asselmann E, Hertel J, Beesdo-Baum K, Schmidt CO, Homuth G, Nauck M, et al. Interplay between COMT Val158Met, childhood adversities and sex in predicting panic pathology: Findings from a general population sample. J Affect Disord. 2018;234:290–6.
- Gorman JM, Kent JM, Sullivan GM, Coplan JD. Neuroanatomical hypothesis of panic disorder, revised. Am J Psychiatry. 2000;157(4):493–505.
- 123. Sobanski T, Wagner G. Functional neuroanatomy in panic disorder: status quo of the research. World J Psychiatry. 2017;7(1):12–33.

- 124. Asami T, Yamasue H, Hayano F, Nakamura M, Uehara K, Otsuka T, et al. Sexually dimorphic gray matter volume reduction in patients with panic disorder. Psychiatry Res. 2009;173:128–34.
- 125. Lovick TA. Sex determinants of experimental panic attacks. Neurosci Biobehav Rev. 2014;46(Pt 3):465–71.
- 126. Seeman MV. Psychopathology in women and men: focus on female hormones. Am J Psychiatry. 1997;154:1641–7.
- 127. Kim IR, Min SK, Yu BE. Differences in beta-adrenergic receptor sensibility between women and men with panic disorder. Eur Neuropsychopharmacol. 2004;14:515–20.
- 128. Le Melledo JM, Van Driel M, Coupland NJ, Lott P, Jhangri GS. Response to flumazenil in women with premenstrual dysphoric disorder. Am J Psychiatry. 2000;157:821–3.
- 129. Latas M, et al. Gender differences in psychopathologic features of agoraphobia with panic disorder. Vojnosanit Pregl. 2006;63:569–74.
- 130. Francis JL, et al. Characteristics and course of panic disorder and panic disorder with agoraphobia in primary care patients. Prim Care Companion J Clin Psychiatry. 2007;9:173–9.
- 131. Altemus M, Epstein L. Sex differences in anxiety disorders. In: Becker JB, Berkley KJ, Geary N, Hampson E, Herman JP, Young EA, editors. Sex differences in the brain. New York: Oxford University Press; 2008. p. 397–404.
- 132. Kessler RC, McGonagle KA, Zhao S, et al. Lifetime and 12 month prevalence of DSM-III-R psychiatric disorders in the United States: results from the national comorbidity survey. Arch Gen Psychiatry. 1994;51(1):8–19.
- 133. Grant BF, et al. The epidemiology of DSM-IV panic disorder and agoraphobia in the United States: results from the National Epidemiologic Survey on Alcohol and Related Conditions. J Clin Psychiatry. 2006;67:363–74.
- 134. Cox BJ, Swinson RP, Shulman ID, et al. Gender effects and alcohol use in panic disorder with agoraphobia. Behav Res Ther. 1993;31(4):413–6.
- 135. Teismann T, Lukaschek K, Hiller TS, Breitbart J, Brettschneider C, Schumacher U, et al.; Jena Paradies Study Group. Suicidal ideation in primary care patients suffering from panic disorder with or without agoraphobia. BMC Psychiatry. 2018;18(1):305.
- Sadock BJ, Sadock VA. Kaplan and Sadock's synopsis of psychiatry. 10th ed. New York: Wolters Kluwer; 2012.
- Davidson J. Pharmacotherapy social anxiety disorder. J Clin Psychiatry. 1998;59(Suppl 17):S47–51.
- Batstra L, Frances A. Holding the line against diagnostic inflation in psychiatry. Psychother Psychosom. 2012;81:5–10.
- 139. Van der Heiden C, Methortrst G, Muris P, van der Molen HT. Generalized anxiety disorder: clinical presentation, diagnostic features, and guidelines for clinical practice. J Clin Psychol. 2011;67:58–73.
- 140. Kessler RC, et al. The epidemiology of generalized anxiety disorder. Psychiatr Clin North Am. 2001;24:19–39.
- 141. Kessler RC, Petukhova M, Sampson NA, Zaslavsky AM, Wittchen H-U. Twelve-month and lifetime prevalence and lifetime morbid risk of anxiety and mood disorders in the United States. Int J Methods Psychiatr Res. 2012;21(3):169–84.
- 142. Alonso J, Lépine JP, ESEMeD/MHEDEA 2000 Scientific Committee. Overview of key data from the European Study of the Epidemiology of Mental Disorders (ESEMeD). J Clin Psychiatry. 2007;68(Suppl 2):3–9.
- 143. Somers JM, Goldner EM, Waraich P, Hsu L. Prevalence and incidence studies of anxiety disorders: a systematic review of the literature. Can J Psychiatr. 2006;51:100–13.
- 144. Beesdo-Braun K, Winkel S, Pine KS, Hoyer J, Ho"fler M, Lieb R, Wittchen HU. The diagnostic threshold of generalized anxiety disorder in the community: a develop perspective. J Psychiatr Res. 2011;45:962–72.
- 145. Yonkers KA, Warshaw MG, Massion AO, Keller MB. Phenomenology and course of generalized anxiety disorder. Br J Psychiatry. 1996;168(3):308–13.

146. Nutt D, Argyropoulos S, Hood S, Potokar J. Generalized anxiety disorder: a comorbid disease. Eur Neuropsychopharmacol. 2006;16:109–18.

- 147. Gentes EL, Ruscio AM. A meta-analysis of the relation of intolerance of uncertainty to symptoms of generalized anxiety disorder, major depressive disorder, and obsessive-compulsive disorder. Clin Psychol Rev. 2011;31:923–33.
- 148. Kertz SJ, Bigda-Peyton JS, Rosmarin DH, Björgvinsson T. The importance of worry across diagnostic presentations: prevalence, severity and associated symptoms in a partial hospital setting. J Anxiety Disord. 2012;26:126–33.
- 149. McLean CP, Anderson ER. Brave men and timid women? A review of the gender differences in fear and anxiety. Clin Psychol Rev. 2009;29:496–505.
- 150. Lijster JM, Dierckx B, Utens EM, Verhulst FC, Zieldorff C, Dieleman GC, Legerstee JS. The age of onset of anxiety disorders. Can J Psychiatr. 2017;62(4):237–46.
- 151. Baldwin DS, Allgulander C, Bandelow B, Ferre F, Pallanti S. An international survey of reported prescribing practice in the treatment of patients with generalized anxiety disorder. World J Biol Psychiatry. 2012;13(7):510–6.
- 152. Yonkers KA, Kidner CL. Sex differences in anxiety disorders. In: Lewis-Hall F, Williams TS, Panetta JA, Herrera JM, editors. Psychiatric illness in women. Washington, DC: American Psychiatric Publishing; 2002. p. 5–30.
- 153. Howell HB, Brawman-Mintzer O, Monnier J, Yonkers KA. Generalized anxiety disorder in women. Psychiatr Clin North Am. 2001;24:165–78.
- 154. Yonkers KA, Dyck I, Warshaw M, et al. Factors predicting the clinical course of generalized anxiety disorder. Br J Psychiatry. 2000;176:544–50.
- 155. Dold M, Bartova L, Souery D, Mendlewicz J, Serretti A, Porcelli S, et al. Clinical characteristics and treatment outcomes of patients with major depressive disorder and comorbid anxiety disorders—results from a European multicenter study. J Psychiatr Res. 2017;91:1–13.
- 156. Bandelow B, Michaelis S. Epidemiology of anxiety disorders in the 21st century. Dialogues Clin Neurosci. 2015;17(3):327–35.
- 157. Kendler KS, et al. The sources of co-morbidity between mayor depression and generalized anxiety disorder in a Swedish national twin sample. Psychol Med. 2007;37:453–62.
- 158. Gomez AF, Barthel AL, Hofmann SG. Comparing the efficacy of benzodiazepines and sero-tonergic anti-depressants for adults with generalized anxiety disorder: a meta-analytic review. Expert Opin Pharmacother. 2018;19(8):883–94.
- 159. Carpenter JK, Andrews LA, Witcraft SM, Powers MB, Smits JAJ, Hofmann SG. Cognitive behavioral therapy for anxiety and related disorders: a meta-analysis of randomized placebocontrolled trials. Depress Anxiety. 2018;35(6):502–14.
- 160. Lochner C, Hemmings SM, Kinnear CJ, Moolman-Smook JC, Corfield VA, Knowles JA, et al. Gender in obsessive-compulsive disorder: clinical and genetic findings. Eur Neuropsychopharmacol. 2004;14:105–13.
- Bogetto F, Venturello S, Albert U, Maina G, Gand L, Ravizza A. Gender-related clinical differences in obsessive-compulsive disorder. Eur Psychiatry. 1999;14:434

  –41.
- 162. Torresan RC, Ramos-Cerqueira AT, De Mathis MA, Diniz J-B, Ferrão YA, Miguel EC, Torres AR. Sex differences in the phenotypic expression of obsessive-compulsive disorder: an exploratory study from Brazil. Compr Psychiatry. 2009;50:63–9.
- 163. Tukel R, Polat A, Genc A, Bozkurt O, Atli H. Gender-related differences among Turkish patients with obsessive-compulsive disorder. Compr Psychiatry. 2004;45:362–6.
- 164. Cherian AV, Narayanaswamy JC, Viswanath B, Guru N, George CM, Bada Math S, et al. Gender differences in obsessive-compulsive disorder: findings from a large Indian sample. Asian J Psychiatr. 2014;9:17–21.
- 165. Labad J, et al. Female reproductive cycle and obsessive-compulsive disorder. J Clin Psychiatry. 2005;66:428–35.
- 166. Williams KE, Koran LM. Obsessive-compulsive disorder in pregnancy, the puerperium, and the premenstruum. J Clin Psychiatry. 1997;58:330–4.
- Sichel DA, Cohen LS, Rosenbaum JF, Driscoll J. Postpartum onset of obsessive-compulsive disorder. Psychosomatics. 1993;34:277–9.

- 168. Diniz JB, et al. Impact of age at onset and duration of illness on the expression of comorbidities in obsessive. Compulsive disorder. J Clin Psychiatry. 2004;65:22–7.
- 169. De Mathis MA, et al. Obsessive-compulsive disorder: influence of age at onset comorbidity patterns. Eur Psychiatry. 2008;23:187–94.
- 170. Castle DJ, et al. Gender differences in obsessive compulsive disorder. Aust N Z J Psychiatry. 1995;29:114–7.
- 171. Alonso P, et al. Long-term follow up and predictors of clinical outcome in obsessive-compulsive patients treated with serotonin reuptake inhibitors and behavioral therapy. J Clin Psychiatry. 2001;62:535–40.
- 172. Eisen JL, et al. Impact of obsessive-compulsive disorder on quality of life. Compr Psychiatry. 2006:47:270–5.
- 173. Vulink NC, et al. Female hormones affect symptom severity in obsessive-compulsive disorder. Int Clin Psychopharmacol. 2006;21:171–5.
- 174. Ross LE, Mclean LM. Anxiety disorders during pregnancy and the postpartum period: a systematic review. J Clin Psychiatry. 2006;67:1285–98.
- 175. Tripathi A, Avasthi A, Grover S, Sharma E, Lakdawala BM, Thirunavukarasu M, et al. Gender differences in obsessive-compulsive disorder: Findings from a multicentric study from India. Asian J Psychiatr. 2018;37:3–9.
- 176. Raines AM, Oglesby ME, Allan NP, Mathes BM, Sutton CA, Schmidt NB. Examining the role of sex differences in obsessive-compulsive symptom dimensions. Psychiatry Res. 2018;259;265–9.
- 177. Alizadeh N, Nosrat N, Jahani Z, Ahmadiani A, Asadi S, Shams J. Association of HTR1A gene polymorphisms with Obsessive-Compulsive Disorder and its treatment response: the influence of sex and clinical characteristics. Int J Neurosci. 2018:1–23. https://doi.org/10.10 80/00207454.2018.1526799.
- 178. Clayton JA, Collins FS. Policy: NIH to balance sex in cell and animal studies. Nature. 2014;509(7500):282–3.
- 179. Cahill L, Aswad D. Sex influences on the brain: an issue whose time has come. Neuron. 2015;88(6):1084–5.
- 180. Hamilton J, Yonkers K. Sex differences in pharmacokinetics of psychotropic medications. In: Jensvold M, Halbreich U, Hamilton J, editors. Psychopharmacology and woman. Washington, DC: American Psychiatric Press; 1996.
- 181. Van der Waals FW, et al. Sex differences among recipients of benzodiazepines in Dutch general practice. Br Med J. 1993;307:363–6.
- 182. Wang PS, et al. Failure and delay in initial treatment contact after first onset of mental disorders in the National Comorbidity Survey Replication. Arch Gen Psychiatry. 2005;62:603–13.
- 183. Ellinwood EH, Easler ME, Linnoila M. Effects of oral contraceptives on diazepam induced psychomotor impairment. Clin Pharmacol Ther. 1994;35:360–6.
- 184. Kimmel S, Gonsalves L. Fluctuating level of antidepressants premenstrually. J Psychosom Obstet Gynaecol. 1992;13:277–80.
- 185. Abernethy DR, Greenblatt DJ, Shader RI. Imipramine and desipramine disposition in the elderly. J Pharmacol Exp Ther. 1985;232:183–8.
- 186. Butler AC, Chapman JE, Forman EM, Beck AT. The empirical status of cognitive-behavioral therapy: a review of meta-analyses. Clin Psychol Rev. 2006;26:17–31.



# **Gender Differences in Posttraumatic Stress Disorder**

28

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#### Abstract

Posttraumatic stress disorder began to be described in situations of war since Ancient Greece. For this reason the female gender was practically excluded for decades of this diagnosis by a gender issue. Epidemiological differences point to predominance of women over men; even with the highest prevalence of trauma in males, women would be more likely to develop this condition. It is possible that under these figures underlies an oversimplification of epidemiological studies that do not consider certain traumas or certain predispositions determined by the female gender role. In this chapter we aim to review the psychopathological differences that can be found in this syndrome by gender, based on the few studies that address the issue, as we have found before a scientific vacuum yet to be explored.

Gender violence is a major source of trauma, whether acute or chronic, occurring much more frequently in women than in men and that for many years has been silenced; that is why it has not been recorded or studied by experts as a focus of PTSD.

The way we channel and manage emotions is different in male and female, and these strategies that we use as we are men or women can determine the presence or absence of PTSD. The question is whether this is due to biological differences or to the assimilation of how to behave according to the expectations that society has invested in us according to our masculine or feminine gender.

# 28.1 History

The first description of such facts can be traced back to 400 years BC when Herodotus described the Battle of Marathon.

About 40 centuries ago the Egyptian papyrus in Kunyus made a mention of the reaction of many people to severe flooding of the Nile River delta [1].

Classical Greek authors such as Hippocrates and Herodotus referred to stories of nightmares and other PTSD symptoms in surviving soldiers who conducted battle. In addition, the Old Testament made allusion to soldiers who had to be withdrawn from the battle for emotional breakdowns and also described that their reactions could be contagious [2].

Historically the trauma has been associated with war situations, which is why it has been linked mainly with physical trauma and with male condition. It must be remembered that the term trauma is of Greek origin and refers to wound. It will be remembered later when the psychic becomes relevant.

In a review that tracked accurately from classical antiquity, there were mentions about people with serious mental disorders as a result of participating in fights, as well as descriptions of individuals who, in situations that today would be called psychic trauma, react with symptoms of anxiety and disorganization of behavior which may persist chronically [3].

Pinel includes not only what we would now call PTSD in people affected by military actions that took place around the French Revolution, but he also describes for the first time posttraumatic symptoms in a person affected by an accident (the philosopher Pascal, after a car accident) [4].

Psychopathology was considered by authors like JM Charcot, Janet P, and S Freud centuries later.

After Pinel, Erichsen in 1866 and Page in 1885 described some cases of traumatic consequences of railway accidents.

Oppenheim in 1884 first used the term traumatic neurosis from his comments on railway accidents and labor; in 1907, Honigman coined the term shell shock from the case studies in the Russo-Japanese and emphasized the similarities of their observations with the cases studied by Oppenheim.

In 1915, during the war, British authorities opened a unit specializing in the treatment of what was beginning to be called shell shock. This term was first used by Myers for patients who had had the experience of dropping bombs near them [5].

In 1917 Salmon was a military doctor who formulated the five key principles for the care of these patients [6].

The Vietnam War was a decisive turning point in the consideration of these disorders.

Along the history of psychiatry, women occupied an important part for mental health problems. However, at the beginning they were ignored in the concept of PTSD because it was circumscribed to war victims (mostly men), and physical situations as rape and sexual abuse were ignored for many years.

Culture is a benchmark for understanding PTSD inexcusable, in that it represents a set of unique patterns of adaptation to a specific context, involving the response to threats that may arise.

Clearly there are certain universal threats that are perceived as such in all groups, but the average modulation capability and very important cultural values introduce variations in the way the individual processes a specific threat and resents his/her trauma concrete. Culture includes gender, ethnicity, and social and economical status too.

Although it is clear that in recent decades there has been a trend toward flexibility in gender roles and to equal opportunities for people regardless of gender, it is also clear that men and women are still socialized with different rules and expectations regarding the expression of feelings, pressure to succeed in academic tasks or work, participation in domestic work, commitment to the care and concern for relationships and caring for others, etc., which leads to significant psychological consequences. For many authors, the gender socialization gives rise ultimately to different trends in men and women on their mental health [7].

There is considerable evidence that the incidence of various forms of psychopathology, as well as demand and psychotherapeutic care services, differs between men and women. The most notable differences were observed in the rates of depression, neurosis, somatic disorders, and anorexia nervosa, with a clear female predominance, compared to the sociopathy and paranoia that were observed more frequently among men [8].

As for anxiety disorders, which are the most prevalent psychological disorders in both the general population and in psychiatric settings, although the difference in rates between genders is less well established, in general, we can say that women have, on the whole, much risk of suffering more than men. The question is why is that happening?

Another important aspect linked to the traditional role of women is the femininity. Numerous studies have investigated the relationship between masculinity, femininity, and androgyny on the one hand and various indices of mental health. There is considerable evidence that masculinity tends to be associated more than femininity with better personal adjustment indices, including increased self-esteem and a tendency to have lower levels of anxiety and depression [9–11].

Other studies have found a relationship, also in people of both sexes, between femininity and certain aspects of personal and social adjustment as the perception of self-efficacy, satisfaction in personal relationships, and self-esteem components that relate to communal aspects [12, 13].

Studies that analyze the relationship between masculinity, femininity and androgyny anxiety, on the one hand and the other, in addition to indicating that women have higher levels of anxiety than men, indicate that individuals with female typing also They show a greater tendency to anxiety than men or androgynous [14–17].

The question is, if the sociocultural aspects are essential in the presentation of symptoms in the general population, why does it have an important influence on the presentation of clinical symptoms in women?

# 28.2 Neuroendocrine Stress Response

Stress is the response of the organism-specific and stereotyped against any claims, which may result in various symptoms or tending to be adaptive homeostasis.

The stressor may be objective or subjective, single or repeated, and trigger an acute or a chronic response. Psychological stress in the cognitive and emotional component in the response will depend on the overall assessment made by the subject of the threatening situation.

In the acute response of the amygdale, stress is one of the structures that plays a very important role. The activation of the hypothalamic-pituitary-adrenal (HPA) from the release of ACTH, catecholamine, and immune systems, among others, forms the biological response of stress; gonadal hormones participate as modulating factors.

In this way one can understand the role of estrogen in the differential response between the sexes that cope with stress. Estrogens determine a specific organization of neural circuits that regulate gonadotropin release and sexual behavior and also participate in the regulation of the HPA axis.

On the other hand, women have greater neuroendocrine response activation than men in a stressful situation, which has been expressed in higher levels of ACTH and prolactin. The action of estrogen can partially explain PTSD in women but also the abuse of exploitation, psychical and sexual abuse, denial of rights, etc. We cannot forget that till the early twentieth century, women had no rights: they could not vote, they could not have an equal education, and the only way was to marry and have children, and they were much more abused inside the family, and all their staff was socially accepted. This must lead to a chronic stress in brain [18].

Early estrogen facilitates the stress response with increased cortisol but then decreases estrogen and produces a state equivalent to the follicular phase of the menstrual cycle, which would favor a PTSD-type response.

Sex steroids are not only involved in brain development of the architecture, but also affect brain function through interaction with different neurobiological systems. They also influence the expression and development of sexual behavior modulating effects through the levels, metabolism, and receptors of 5-HT (serotonin).

Estrogens promote the response of 5-HT 1A receptors in the hippocampus, and progesterone modulates response sensitivity in 5-HT 1A receptors. Progesterone can act as a glucocorticoid antagonist, thereby regulating stress resistance.

Under stress, the organism releases cortisol, glucocorticoid directly inhibits the function of 5-HT 1A receptors, progesterone sensitivity to modulate responses in the 5-HT 1A and alters its effects.

Women presented higher levels of 5-HT and its metabolite 5-HIAA (5-hydroxyindoleacetic acid) and greater imipramine binding in right orbital cortex.

The difference in sensitivity to stimulation of 5-HT, due to the different modulation by sex steroid receptors, may be the basis of differences in behavior, aggression, impulsivity, and mood regulation of some mental disorders in sexes.

#### 28.2.1 Neurotransmitters and PTSD

A threatening situation is detected by the subject through the sense organs, which in turn generates a memory register for both the actual facts as to the emotional component.

Hormonal response to stress begins with the release of the hypothalamic peptides CRH (corticotropin-releasing hormone) and arginine vasopressin, which leads to an increase in the release of ACTH (adrenocorticotropic hormone corticotropin) and cortisol.

PTSD is characterized by peripheral system hyporesponsiveness HHA (hypocortisolemia) with high concentrations of CRH in the cerebrospinal fluid and more negative feedback inhibition of cortisol [19, 20].

There is therefore a hypersensitive HPA, which translates ACTH response to CRH decrease (which may be the result of hyperresponsiveness of the pituitary to feedback of cortisol and increased glucocorticoid receptors in the pituitary) [21].

Through the dexamethasone suppression test, which is a requirement for the HPA has been found that in PTSD causes greater suppression in ACTH and cortisol release.

The HPA axis has a number of effects on the female hormonal cycle, and in turn, changes in estrogen and progesterone can influence changes in PTSD symptoms.

The relative hypercortisolemia third trimester of pregnancy may facilitate transient adrenal suppression in postpartum, which could affect PTSD symptoms in late pregnancy or postpartum in women with this diagnosis.

It is important the role of context, i.e. how hormones are involved in a person susceptible to a particular psychiatric disorder. The context for hormone action includes current physiological conditions, external environment, previous experiences, history of exposure to specific stimuli, and genetics. Of course, the sociocultural context also plays a major role in the development of PTSD, so living at risk (poverty, low education...) can be a defining factor for this disease. Ultimately it is the set of biological and sociocultural factors that determines the development of PTSD [22].

PTSD is associated with a history of child abuse accompanied by alterations in brain development; in terms of sex differences in brain maturation, in men there was a smaller brain volume and corpus callosum and in women there was a greater increase in the volume of the lateral ventricles [23].

The structure and function of the hippocampus were compared in women with a history of sexual abuse with and without PTSD, with MRI and CT; the results showed a failure in the activation of the hippocampus and a lower volume of this in women with PTSD, and also presented decreased activity of the prefrontal cortex (medial and anterior cingulate areas) as well as visual and parietal cortices [24].

Shin and colleagues have shown by PET and provocation of symptoms that in women with a history of sexual abuse and PTSD, the increased blood flow is concentrated in the orbitofrontal cortex and anterior temporal pole.

Amygdala activation was found to be more pronounced in females in response to negative stimuli and more pronounced in males in response to positive stimuli [25], suggesting differential valence-bound limbic activation.

Functional and structural connectivity of fronto-limbic circuits also appears to follow sex-specific patterns, with increased connectivity among females when compared to males [26, 27], although some contradictory results have also been found suggesting that other factors may moderate this difference [28].

These circuits have also been implicated in sex-specific patterns in cognitive processes relevant to trauma and related psychopathology, including memory, reward processing, and emotional regulation. Semantic memory associates with increased prefrontal cortex (PFC) and dorsal anterior cingulated cortex (dACC) activations among females as compared to males, suggesting more emotional encoding [29].

Reward-based risk taking involves higher striatal activation in females versus males [30], and emotional regulation has been found to associate with stronger negative amygdala-PFC connectivity and positive amygdala-insula connectivity among females and with weaker connectivity in these pathways among males [31]. Sex differences have even been found in the neural underpinnings of automatic, universal processes such as autonomic arousal, with a positive association between arousal and amygdala activation among females and a negative one among males [32, 33].

PTSD has a profile in which the value of corticotropin-releasing factor is high, whereas cortisol levels are reduced.

New research from nonhuman animal studies is revealing biological factors that can increase female vulnerability to stress and stress-related pathology [34, 35].

Corticotropin-releasing factor (CRF) function has mostly been characterized in male subjects, but when females are included studies reveal several important sex differences. First, CRF-producing neurons are regulated by different types of receptors [36]. Moreover, within CRF neurons, expression of CRF is reported to be higher in females than males in some brain regions, an effect that can overcome the ability of CRF-binding protein to buffer the effects of CRF on anxiety in females [37]. Further, at the receptor level, there are sex differences in receptor expression, distribution, trafficking, and signaling, and many, but not all, of these sex differences have been linked to increased female CRF sensitivity [38–42]. Most of these sex differences translate into enhanced CRF efficacy in females and may help explain why women are more likely to suffer from disorders characterized by CRF dysregulation, including PTSD, panic disorder, and major depression [43–46].

How these sex differences in CRF function are established remains largely unknown. There is evidence that, in some cases, circulating ovarian hormones play a role [47–51].

It is important to note, however, that not all sex differences are regulated by circulating ovarian hormones. For example, sex differences in CRF1 receptor function in the locus coeruleus are still apparent in rats gonadectomized in adulthood [40, 52].

This result indicates that circulating hormones do not play a role, but rather this receptor sex difference results from organizational effects of hormonal surges in the development or the different complement of genes on sex chromosomes [53].

The hyperresponsiveness to test dexamethasone suppression (PTSD patients are hypersuppressors) increases the concentration and sensitivity of glucocorticoid receptors in lymphocytes and increases response adrenocorticotropic hormone (ACTH) stimulation before metyrapone [54].

There seems to be a difference in response to traumatic situations in both genders. Women report less traumatic experiences throughout life but on the other hand are more vulnerable to them, so these experiences will generate more serious psychiatric morbidity [55]. The differences between the sexes in the neurobiological response to stress considered the mediating action of sex hormones [56].

# 28.3 Epidemiology

In recent reviews the range of lifetime prevalence in the general population is between 1.0% and 12.3% and states that the overall risk of developing PTSD in people who have suffered some type of trauma must be about 9.2% [57]. PTSD figures reached 23.6% of those who suffered some kind of trauma, and within these sex appeared as a determinant: 30.7% of the exposed women developed PTSD compared with only 14% of the exposed people [58].

In other studies such as Stein's (1997), figures for the general population vary between 6.0% in women and 1.4% in men [59, 60].

There are distinguishing aspects that remain, however, through cultures and persist despite the development of the same, for example, higher frequency of emotional problems of women from adolescence.

As in the case of gender violence, sexual assault and child sexual abuse, women are one of the circumstances that have traditionally been considered a high risk of victimization. In fact, different studies agree that the highest incidence of sexual abuse of girls is 2 to 3 girls for each boy, taking into account all areas of life, cultural background or races.

Sexual assault is a traumatic event, as in the case of other negative events, and can produce negative psychological effects. Wolfe, Gentile, and Wolfe (1989) consider the consequences of sexual abuse as a form of PTSD. About 15% of the female population suffers from a sexual assault throughout their life [61].

| Lifetime prevaler | nce of PTSD (%) in the gene | eral population |      |
|-------------------|-----------------------------|-----------------|------|
| Year (ref)        | Author                      | Women           | Men  |
| 1987              | Helzer                      | 1.3             | 0.5  |
| 1991              | Davidson                    | 1.7             | 0.9  |
| 1991              | Breslau                     | 11.3            | 6.0  |
| 1992              | Norris                      | 8.5             | 6.1  |
| 1994              | Rioseco                     | 5.1             | 2.7  |
| 1995              | Kessler                     | 10.4            | 5.0  |
| 1998              | Breslau                     | 18.3            | 10.8 |
| 2002              | Perkonning                  | 2.2             | 1.0  |
| 2002              | Vicente                     | 6.2             | 2.5  |

It is remarkable that the most common diseases in women correspond to the realm of spirits. The two main risk factors for PTSD are sex and history of previous trauma (especially violence in childhood).

Researchers have demonstrated that childhood physical and/or sexual abuse increases vulnerability to PTSD in adulthood [62]. Of note, women are at higher risk than men of becoming victims of childhood sexual abuse globally (20% vs. 8%) [63, 64] and hence at increased risk of PTSD [65, 66].

Among the demographic factors in the prevalence of PTSD, it was found that the age of women was not a factor and the race did not influence the risk of PTSD; however, the educational and economic level has an inverse association with the prevalence of PTSD.

Women have a risk of developing PTSD than in most of the literature is twice that men and has even become triple [67].

The risk of developing PTSD varies with the type of trauma and gender; rape and child abuse on women are higher stressors with high presentation. The frequency of occurrence of PTSD in women after an episode of rape varies according to authors between 35 and 65%. Other situations of violence, such as assaults, are accompanied by increased risk of PTSD in women than in men (54.1% vs. 15.4%).

Pulcino et al. proposed that women biographical and behavioral factors are responsible for specific increased likelihood of PTSD after a disaster [68]. Women who are traffic accident victims with peritraumatic dissociation at the time of the accident have increased risk of acute PTSD than men [69]. It has been observed that the failure of women, who have been victims of rape in childhood, to disclose what happened before the month reduces the rate of PTSD [70].

Pregnancy can be a condition facilitating the emergence of PTSD, even at the stage which is close to parturition [71]. Also spontaneous abortion may be associated with PTSD in 25% of patients per month and 7% at 4 months [72]. A woman facing the probable diagnosis of breast cancer may experience traumatic reactions with symptoms of PTSD in 4–7% of cases [73].

Women victims of domestic assault have a higher risk of PTSD, which would not be associated directly with the severity of aggression or with physical injuries but rather to the intensity of the perceived threat [74].

Indeed, some researchers have argued that thoughts about one's perceived weakness and the dangerousness of the world play an important role in the development of PTSD [75–77].

#### 28.4 Trauma

DSM-IV defined trauma as "an event that poses a threat to the physical integrity of self or others." This definition supports a clear subjectivity (often a disparity between the perceived threat and the real threat), including traumatic events of gravity variable.

The types of trauma can be classified as natural disasters (floods, earth-quakes), accidents (fires, traffic accidents, or occupational), and trauma caused deliberately by man (physical abuse and/or sexual abuse and neglect, gender violence, assault, rape, terrorism, war, captivity, torture). The traumatic event can be unique (traffic accident) or repeated (child abuse, war experience) and produce an emotional impact that lasts from minutes to days, months, or years. The trauma acquires a meaning for each person; this meaning determines the type of response, which will involve the type and intensity of the traumatic event, personality and biography of the subject, and the biological and the social context [78].

The risk of a person to be exposed throughout their lives to a traumatic situation can reach about 70%. These figures seem to be on the rise in accordance with the conditions of modern city life, in which both gender violence in the community increase and accidents (especially traffic) in some countries cause an alarming increase in fatalities and a large number of people with physical and psychological scars. Resnick et al. (2008) found that 36% of women had been victims of any criminal situation, 33% suffered trauma as criminals, 27% suffered sexual assault or rape, and 10% were assaulted [79, 80].

In the US population, the most frequent precipitating situations men are concerned with are the participation in combat and witnessing of death or serious injury, and especially women report assaults or physical or sexual threats and witness lifethreatening events [81].

A clear example of how studies conducted in environments will want to have the female section of statistics is a recent documentary that shows that 15% of recruits entering the army have committed or attempted to commit a violation (usually to a partner of his company), which is double that of the civilian population. Besides, these crimes committed in military settings allow the perpetrator to get away because in 33% of cases the person must report the incident which is a friend of the rapist and in 25% of cases it is the same rapist. So after a war, PTSD is not a disorder of a single cause, and the poor performance of the same may be determined by social factors linked to a particular gender role [82].

Although women have slightly lower average lifetime exposure to trauma, developing PTSD may depend on the type of trauma and its meaning. Rape and sexual abuse occur more commonly in women. Women have higher PTSD rates after childhood trauma than men, which suggests that trauma exposure in women at young age can be a risk factor.

Women are also at greater risk of developing PTSD later on in life as a result of a minor traumatic event, if they have experienced a prior violent assault. The effect of previous trauma suggests a kindling effect, with initial insults causing damage at early developmental stages and influencing the perception of later trauma, thus increasing the likelihood of PTSD [83, 84].

| Traumatic event exposure by sex     |         |           |
|-------------------------------------|---------|-----------|
| Author                              | Men (%) | Women (%) |
| Kessler et al. [85] <sup>a</sup>    | 60.7    | 51.2      |
| Breslau and Davis [58] <sup>b</sup> | 43.0    | 36.7      |
| Kessler et al. [85] <sup>c</sup>    | 35.6    | 14.5      |
| Kessler et al. [85] <sup>d</sup>    | 10.0    | 6.0       |
| Breslau et al. [86] <sup>e</sup>    | 5.3     | 4.3       |

<sup>&</sup>lt;sup>a</sup>Lifetime prevalence of any trauma

According to the results of the studies on the prevalence of mental disorders in the course of life in the United States, conducted by Kessler et al. In the National Comorbidity Survey (NCS), women present significant gender differences with respect to the number of traumas experienced. Three traumas occur in 9.5% of men and 5.0% of women and four or more traumas in 10.2% of men and 6.4% of women. The types of traumatic events in men are often the atrocities of war, violent crime, kidnapping and captivity, while in women the highest frequencies correspond to physical abuse and rape. Men have more accidents in childhood or serious physical injuries than women (28% vs. 11%) [85, 86].

| Significant sex differences for different traumatic events experienced by the general US |  |
|--|--|
| population [85]  |  |

| Traumatic event type      | Women (%) | Men (%) |
|---------------------------|-----------|---------|
| Natural disaster          | 15.2      | 18.9    |
| Life-threatening accident | 13.8      | 25.0    |
| Sexual abuse              | 12.3      | 2.8     |
| Violation                 | 9.2       | 0.7     |
| Physical attack           | 6.9       | 11.1    |
| Threatened with a weapon  | 6.8       | 19.0    |
| Combat                    | 0.0       | 6.4     |

Another study reported that the rates of PTSD are similar among men and women after events such as accidents (6.3% vs. 8.8%), natural disasters (3.7% vs. 5.4%), or sudden death of a loved one (12.6% vs. 16.2%). Although women are more than ten times as likely as men to be raped, the incidence of PTSD after rape is higher in men (65% vs. 46%). The rate of PTSD is lower in men than in women after events such as molestation (12.2% vs. 26.5%) and physical assault (1.8% vs. 21.3%) [87].

While most traumatic events involving personal violence against men were resulting from urban violence, women were more victimized by domestic and sexual violence. For both men and women, the most frequent cause of PTSD was sudden unexpected death of a loved one, accounting for 34% of all PTSD cases, followed by being mugged or threatened with a weapon among women (13.3%) and being beaten up as a child by a caregiver among men (10%). The exposure to rape

bLifetime prevalence of at least one traumatic event

<sup>&</sup>lt;sup>c</sup>Witness to a death

dExposure to four traumas

<sup>&</sup>lt;sup>e</sup>Average traumatic events along urban life

and sexual assault presented the highest conditional risk for PTSD, both for men (20.1%) and women (40%) [88].

The risk of a woman developing PTSD after traumatic exposure is twice that of men; some studies point to a risk of PTSD up to four times higher [84, 89].

The highest rates of PTSD in women have been attributed to higher rates of exposure to sexual trauma in women [90], but this seems to offer only a partial explanation of the differences between men and women. These differences found may also be due in part to the preexistence of anxiety disorders and major depression because they are more prevalent in women.

A study found that even among people who have not been exposed to sexual trauma, PTSD rates following exposure to other serious forms of trauma (i.e., aggressive violence) are several times higher in women than in men. The reasons for this differential susceptibility remain unknown and may involve biological-genetic factors or sociocultural or a combination of them [68].

#### 28.4.1 Risk Factors for Trauma

In female population the risk factors for developing this disorder include those who suffer the trauma in an age below 15 years, more severe trauma, history of behavioral or psychological problems, a family history of psychiatric disorder, parental poverty, child abuse, and separation or divorce of parents before 5. In any case, these risk factors may not be specific only for women, as they are part of the wide range of vulnerability factors for psychiatric disorders in general.

In turn, victims of traumatic events are at increased risk of separation or divorce, unemployment, and poverty, thus creating a vicious circle. Urban life increases the risk of adolescents experiencing more traumatic events (both community violence and gender violence): when compared with the general population, between 8 and 55 situations for urban living against 28 for the general population [91].

In a general population sample of 2863 women by a prospective study of 3 years, poverty status, being single or recently separated or divorced, and having a lower educational level than their mothers or caregivers predisposed them to violence [92].

According to a study which used a genetic approach, two associations with the risk of PTSD in women related to genetically determined body shape and reproductive behaviors were found. Both mechanisms appear to be female specific (i.e., there was no such association in men) and they suggest that sex differences in traumatype prevalence and molecular mechanisms of trauma response could contribute to the greater vulnerability to PTSD observed in women [93].

#### 28.5 Gender Violence

One study found that PTSD was present in half of the subjects abused, which is a similar percentage to that in sexual assault. The forms of gender violence, psychological or physical, does not mean changes in the prevalence of PTSD. In fact among the

victims of abuse and sexual assault there are also differences in other psychopathological variables (anxiety and depression), except global maladjustment in everyday life, which is more pronounced in the case of battered women. In any case, anxiety tends to appear more frequently in sexual assault victims, however, the depression tends to appear more frequently in the abuse, perhaps resulting from the nature helplessness chronic aversive situation. Otherwise a higher risk of experiencing adult lifetime partner violence among women with depressive disorders, anxiety disorders, and PTSD compared to women without mental disorders was found [94, 95].

A study of 1952 women attending primary care found that 1 of every 20 women had suffered gender violence last year, violence in adulthood, and violence either as a child or as an adult and found an increased risk of violence as increased risk factors (such as single or separate living, substance abuse, physical symptoms, and psychopathology). It is estimated that more than 50% of the women in Latin America and the Caribbean suffer some type of family violence [96, 97].

We also found that 21–34% of women were victims of sexual abuse by their male partners over their lifetime [98, 99].

Polusny et al. found that 15–33% of women and 13–16% of men had been victims of childhood sexual abuse when they studied general population [100].

In terms of gender violence, assessed in 422 households, Temuco (urban community of southern Chile) determined that 49% of women had psychological aggression, 13% physical violence, and 5.5% sexual abuse by her husband or partner. 8.5% experienced physical violence during pregnancy. Factors associated with gender violence were found as anxiety and depressive symptoms. Violent men were characterized by being victims of violence in childhood, having witnessed violence between parents, have low education, no gainful employment, occasional heavy drinking and the lack support network of neighbors [101].

Abused woman during pregnancy, due to domestic violence, increases the risk of spontaneous abortion, hypertension of pregnancy, intrahepatic cholestasis, and intrauterine growth retardation [102].

Moreover, women can also be the aggressor, but it is men who accumulate the greatest figures of aggression. Child sexual abuse is committed in 96% of cases by men (who usually have some kinship with the victims) and 4% by women (who usually are the mothers of the victims) [103].

One percent of US violation is committed by a woman, according to the Department of Justice data [104].

In relation to the specific psychopathological profile of PTSD in different types of subject, re-experiencing is very high in victims of sexual assault, terrorism, and abuse; avoidance is very strong in almost all categories of patients and affects hyperactivation in all victims, except for people diagnosed with a serious illness. The latter case is more predominantly present in symptoms of hopelessness [67, 99].

One-third of women in the United States report physical, sexual, and/or psychological victimization by an intimate partner in their lifetime. Posttraumatic stress disorder (PTSD) is highly prevalent among women who experience intimate partner violence (IPV), with rates ranging from 31% to 84% [105–107]. Intimate partner

violence (IPV) is a significant public health problem in the United States with the most recent national surveys estimating that approximately one in three women experience rape.

Men who experienced sexual abuse reported a greater number of symptoms and were consistently more distressed than women on both individual symptoms and symptom factors. This finding tends to undercut the notion that women's higher PTSD rates are due to women more readily acknowledging symptoms or experiencing a comparable trauma as being more threatening than men [108, 109].

#### 28.6 Clinic

The good assimilation and adaptation to psychological trauma is called resilience, condition of the subject to respond adequately to a traumatic event. The concept of resilience is the opposite of vulnerability. A traumatic event can cause many different reactions from some emotional symptoms isolated to the complete picture of PTSD, including even psychotic reactions, sometimes difficult to manage.

Along with the psychological consequences, trauma can also be expressed in medical conditions such as smoking, cancer, ischemic heart disease, sexually transmitted disease, or stroke [110].

Women had higher stress levels (p = 0.029), and there was no gender difference in coping strategies. In addition, a positive influence on perceived stress was identified in patients compromised by other diseases ( $\beta = 3.50$ , p = 0.00), and females ( $\beta = 3.15$ , p = 0.04) [111].

# 28.7 Emotional Expression and Regulation

Expressing of emotions is more common in female gender; several studies suggest greater verbal and written expression of emotions, whether positive or negative, in women. Having a positive correlation between verbal and nonverbal expression is more frequent in women than men. For some authors, men used to avoid criticism and conflict by stonewalling; this involves inhibition to minimize facial expression and eye contact [112].

The trend in women is to externalize emotions. In fact, when PTSD symptoms are present in the past 12 months, women are more willing to seek help than men, according to results of the NCS [113].

For all emotions except anger, women are superior in recognizing and decoding of emotional facial expressions, nonverbal and voice.

Male anger is expressed through vocal modalities, facial and behavioral; however, women expressed more anger intensity and duration than men [114].

Women scored higher than men on variables of empathy and sympathy [115], positive emotions being collected more intensely or more frequent joy, affection, love, warmth, and good feelings [116].

The emotions that men tend to express more predominantly are loneliness, contempt, arrogance, confidence, and guilt, scoring higher on the scales of irritability and anger.

A possible reflection of this is that this greater voice and emotional recognition of women would make them more vulnerable to anxiety and affective disorders. Another thought about it may be that women, being more prone to ruminate as an emotional regulation strategy, account for greater depression and anxiety compared to men [61, 117].

Coping style for dealing with trauma has been proven to play a critical role in PTSD development. The different coping styles between men and women may be one of the explanations for gender differences in PTSD. Men and women are known to have different coping styles. Women are more likely to exhibit an emotional reaction to stressors (emotion focused) and are believed to spend more time seeking support and discussing problems with friends or family [118].

Moreover, women have been found to be significantly more likely to report a lack of alternative coping strategies than men. Female trauma victims are also more likely to self-blame and to hold negative views about themselves and the world than male victims, as well as to view the world as dangerous. Such negative cognition about self and the world is an important predictor for PTSD symptoms [119–121].

The term "emotional regulation" has been used to refer to the variety of activities that allow individuals to monitor, evaluate, and modify the nature and course of emotional response; to pursue their goals; and to respond appropriately to environmental demands.

There seem to be some gender differences in the relationships between emotional regulation strategies and psychopathology. Some theories suggest that gender differences in emotion regulation may contribute to gender differences in certain types of psychopathology [122–124].

Following this line several theories suggest that psychopathology can result from the inability to downregulate negative emotions through strategies such as reappraisal, acceptance, troubleshooting, or attentional redeployment. The reassessment is to find powers or negative and positive interpretations of an event to prevent or reduce negative mood about the event. Acceptance involves recognizing one's emotions without judging them. Problem-solving includes active attempts to overcome or prevent a problem [125].

Finally, redistribution involves attentional to divert the attention from one of the positive or benign stimuli to change the mood (e.g., avoiding the gaze of a frightening scene) [126–129].

Some people not only fail to downregulate negative emotions but also develop processes that exacerbate and prolong these emotions. Rumination, defined as perseverance, proactive approach negative emotions, and causes and consequences thereof, without participating in the resolution of problems, prospectively predicts the symptoms and diagnosis of major depression and anxiety [130–140].

Studies have found that women often have greater social support than men do. Among women, the nature of and response by supporters may also explain, in part, why women more often develop PTSD than men. In one study of victims of violent crime, men and women described similar levels of positive social support but women were more likely than men to report that supporters made them feel worse after the event [141]. Negative responses, but not positive social support, were found to be associated with PTSD. A cross-sectional study found women with PTSD to have poorer communication with members of their social network compared with men. This finding suggests that PTSD in women is associated with relational disturbances not observed among men [142]. A prospective study among women who had experienced sexual violence found no relationship between positive social support and PTSD but did find that the intensity of interpersonal conflict was related to PTSD [143]. These three studies are consistent with a larger body of literature suggesting that gender moderates the relationship between negative social support and PTSD and that, for women, positive social support is not strongly related to PTSD symptom severity [144].

Among the specific anxiety disorders, rumination is associated with an increased risk for social phobia [145], PTSD [146, 147], and generalized anxiety [125, 148, 149].

Psychopathology may also result from excessive attempts to downregulate negative emotions through strategies such as removal or avoidance [132, 150]. The various forms of repression and avoidance have been implicated in psychopathology, including suppression of emotional expression and suppression of unwanted thoughts [151].

Acute phase, stress coping, and psychotherapy: In the acute phase, women generally score higher than men on acute subjective responses, e.g., threat perception, peritraumatic dissociation, and known predictors of PTSD. Women handle stressful situations differently and have evolved differentially to support these different behaviors. For instance, women in stressful situations may use a tend-and-befriend response rather than the fight-or-flight response that is often assumed. Emotion-focused, defensive, and palliative coping are more prevalent in women, while problem-focused coping is higher in men. Women seek more social support, with the lack of it being the most consistent predictor of negative outcome of trauma. Women have been shown to benefit more from psychotherapy than men in the reduction of PTSD symptoms [152].

Self-efficacy, then, acts as a mediator. To social cognitive theorists, this mediational effect is expected since people do not react merely to the effect of the trauma but to continuing adaptational strains caused by the trauma. This mediational effect has been supported in literature, e.g., [153–159].

This mediating effect of self-efficacy is linked to gender. Women are more likely to construct a negative event as central to their identity with ensuing mental health issues [160]. Women coping with trauma reported lower levels of self-efficacy [161]. The same finding was established among Chinese adolescents in dealing with stressful life events [162]. Women have been found to exhibit reduced resilience, a facet of self-efficacy, as trauma centrality increases [163]. In other words, gender can moderate mediational effects.

The stereotype that the female sex is more emotional tends to be dominant in most cultures. In most studies women have more emotional intensity than men and are more expressive. In a study carried out only 3 of the 37 countries analyzed were not predominant in women in the more emotional profile [164].

Women are widely viewed as "more emotional sex" with a greater tendency to express and experience their emotions [165–170]. Men, on the other hand, are seen as designed to eliminate or avoid both the experience and expression of emotions.

According to these views, some theories about gender roles suggest that women use more introspection-focused responses, passive responses to their emotions, such as rumination, while men are more likely to use suppression or avoidance. Because the male gender role is related to to be more active, more likely than men to use problem-solving strategies and reassessment to try to control or change the situations that are directing their emotions [171].

Women use more strategies like emotion regulation compared with men, such as rumination, reappraisal, problem-solving, acceptance, distraction, and seeking social support (or religion).

Much of the emotion regulation in men can be automatic and unconscious. Also, the way men use social support to regulate their emotions may be different than in women. Females predominate in coping or emotion regulation through seeking social support. Men often seek support from male relatives through shared activities and also have this predisposition to ruminate when they are angry, contributing to their higher rates of aggressive or antisocial activity.

This type of automatic, nonconscious engagement in emotion regulation may be more efficient and effective in reducing emotion arousal than conscious emotion regulation. So, to the extent that men are especially likely to engage in nonconscious emotion regulation more than women, they may be benefiting from strategies such as reappraisal even more than women [172].

These gender differences in nonconscious emotion regulation and rumination may explain men's lower rates of disorders such as depression and posttraumatic stress disorder compared to women.

Men may engage in more automatic, nonconscious emotion regulation, and the types of social support men provide to one another may be different from those that women provide. In addition, men may engage in more anger rumination than women do [127].

A study of women who had experienced civilian war-related trauma and women who had not suffered indicated that positive coping strategies related to civil war may be related to overcoming traumatic stress symptoms. Avoidance-coping strategy is an important factor in maintaining PTSD symptoms which is consistent with the disorder itself [173].

# 28.7.1 Diagnostic Criteria

The DSM-IV-R classified PTSD in the group of anxiety disorders, but now the new classification published in May 2013 (DSM-5) places PTSD in a separate category called trauma- and stressor-related disorders. All conditions included in this classification require exposure to a stressful or traumatic event as diagnostic criteria.

The rationale for the creation of this new class is based on clinical recognition of variable expressions of distress as a result of the traumatic experience.

Trauma- and stressor-related disorders include reactive attachment disorder, disinhibited social engagement disorder, posttraumatic stress disorder (PTSD), acute stress disorder, and adjustment disorders.

The exposure necessary criteria unify the clinic included in this class, homogeneous expression of anxiety or fear-based symptoms, anhedonia and dysphoric symptoms, aggressive symptoms, dissociative symptoms, or some combination of those listed symptoms difference this category.

PTSD is defined by three symptom clusters in DSM-5 which are intrusive reexperiencing of the event, persistent avoidance of stimuli associated with the traumatic event, and state of hyperarousal. These symptoms must last more than a month to consider the diagnosis of PTSD. The criteria apply for adults, adolescents, and children older than 6 years old. Symptoms must cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.

Invasive phenomena include recurrent and intrusive recollections of the event, nightmares and feelings on it, behaviors or feelings, and sudden reliving of the traumatic event. Such situations, events, objects, and memories are correlated with abnormal or exaggerated physiological reactivity (sweating, tachycardia, tachypnea, tremor, piloerection, etc.). In many cases a stimulus that can be an image, a tone of voice, a smell, a color, or a word can trigger the onset of these intrusive phenomena and can act as "triggers" or precipitants of the clinic.

Sometimes the syndrome presents with partial or complete amnesia episode so the absence of a head injury is focused on dissociative amnesia. We can also meet with other dissociative symptoms such as depersonalization, derealization, perceptual disturbances, and even leak; these dissociative symptoms represent poor prognostic factors. The DSM-5 has included a clinical subtype "dissociative symptoms" applicable to individuals who meet the criteria for PTSD and additional experience of depersonalization and derealization.

The second group of symptoms is related to persistent avoidance of stimuli associated with the trauma, so the patient is able to minimize or prevent the onset of symptoms and autonomic invaders; this may involve avoidance of places, people, commemorative dates, conversations, etc.

The DSM-IV included here another group of symptoms, blunted affect. It consists of a reduction of the individual's ability to express emotions, which may give a wrong depressive aspect. The DSM-5 considers emotional numbing a specific group of symptoms.

Finally, the third group of symptoms is so exaggerated startle response, hypervigilance, and concentration problems. There is an increased activation of general level of hyperarousal state. This group also includes insomnia and irritability.

The three groups of symptoms of DSM-IV are divided into four groups in the DSM-5: intrusion, avoidance, negative alterations in cognition, and mood and changes in arousal and reactivity. It has broken criterion C of the DSM-IV,

avoidance and numbing, into two criteria: criterion C (avoidance) and criterion D (negative alterations in cognition and mood).

There are two forms of presentation of this entity. The acute is one in which the remission of symptoms occurs in the first 3 months. If the clinic persists beyond 6 months we have a chronic presentation of the disorder. When the clinical picture does not emerge immediately after the traumatic event but appears after 6 months it is called delayed-onset PTSD.

#### 28.8 Clinical Features in Women

Women are about five times more likely to report symptoms of avoidance and four times more likely to have a state of hyper-alertness, loss of interest in significant activities, sleep problems, concentration, and startle responses [174].

Often the disease is complicated with depressive disorders, suicidal behavior and attempts, and alcohol abuse in women. Men more often have behavioral disorders. Women are more likely to become chronic [175].

In this sample of almost 250,000 OEF/OIF/OND veterans followed over a median of approximately 2 and a half years while using VA health care, we found that a majority (77% of men and 59% of women) were overweight or obese at the time of their first BMI measurement in the VA. Also, we found that, while mean BMI increased over time in the whole study population, a PTSD diagnosis was associated with higher rates of BMI growth in women and men alike, with a slightly stronger association in women [176].

To allow for a more complete understanding of PTSD expression among military men and women, we examined gender differences in individual PTSD symptoms and PTSD symptom factors in the US active duty force as a whole, including personnel who may have experienced sexual abuse trauma since and prior to joining the military. The results indicated that women expressed more distress than men across almost all the individual PTSD symptoms, except for hypervigilance, which was more common among men. In univariate analyses, women had significantly higher scores on all four PCL-C factors: re-experiencing, avoidance, emotionally numb, and hyperarousal. Supporting our hypothesis, this finding extends the finding from other studies [177] that not only are military women more likely to meet screening criteria for PTSD than men but they are also more distressed on individual symptoms and symptom clusters. Men's greater distress on hypervigilance is consistent with the hypothesis that men's higher externalizing symptoms, together with greater alcohol use, may account for the associations between alcohol abuse and hyperarousal symptoms observed in some civilian studies [178].

Posttraumatic stress disorder is more common in women than in men. Sex role orientation will influence the way in which, from childhood, and are perceived fear reactions in both sexes. Children who see themselves as more masculine report less number and intensity of fears associated with failure and criticism and less fears of the unknown and medical problems. However, there has been a positive relationship between femininity and fears. It is thought that these differences in children of either sex in the way people react to stress may influence the style of anxious

spectrum pathology at later ages. In the same vein, men express less anxiety than women; they also seem to perceive their relationships and those of others in a less reliable way than women, compared to an outside observer [179–181].

# 28.9 Comorbidity

PTSD is often associated with other mental pathologies such as major depression, anxiety disorders, substance-use disorders, somatoform disorders, dissociative disorders, eating disorders, and borderline personality disorders [86, 182].

The extensive research of Kessler et al. identified that 17% of women had a diagnosis associated with PTSD compared to 12% of men, but when three or more diagnoses were included males outnumbered females (59% vs. 44%). These data suggest a possible induction of an underlying neurobiological diathesis given in youth adverse environments, and an effect on the development, causing an increased susceptibility to the deleterious effects of trauma future [86].

Alternative explanations have been proposed for the association of PTSD and these disorders. First, preexisting psychiatric disorders may increase the likelihood of PTSD by increasing the risk for the exposure to traumatic events of the type that lead to PTSD or increase victims' susceptibility to the PTSD-inducing effects of trauma. Second, PTSD may be a causal risk factor for other psychiatric disorders. Use of alcohol or drugs to relieve the distressing symptoms of PTSD may increase the likelihood of dependence; major depression may develop as a complication of PTSD and its associated impairment. Third, the associations may be noncausal, reflecting shared genetic or environmental factors [85, 183].

To assess the comorbidity of PTSD it should be considered if the variety is acute (up to 3 months' duration) or chronic PTSD. In chronic PTSD comorbidity described can reach 80% [184]. In contrast, in acute PTSD accidents, Carvajal et al. found comorbidity of 38% and was the most frequent diagnosis of personality disorder [185].

The extensive research of Kessler et al. identified that 17% of women had a diagnosis associated with PTSD compared to 12% of men, but three or more diagnoses included that males outnumbered females (59% vs. 44%) [86].

PTSD also increases the risk in women to present a first depressive episode, dysthymia, mania, and other anxiety disorders, and to develop substance abuse and dependence between three and four times as compared to people without PTSD. Conversely, when exploring PTSD in women who abuse substances, its frequency is between 43% and 59% [186, 187].

Both men and women with PTSD are twice or more as likely to have associated medical pathology compared to subjects without PTSD. Depression and low income were risk factors for medical comorbidity of PTSD in women but not in men, according to data from the NCS [188].

A group of women who had been raped or had experienced an assault were evaluated within 2 weeks of the traumatic event and 3 months later; PTSD was diagnosed in 76% and 49%, respectively, and also comorbid depression was found in 29% and 13% [189]. The association between a history of sexual abuse and

somatic symptoms in women attending primary care was studied and found that of 219 women 43.9% who reported one or more traumatic events had more somatic symptoms and a history of abuse was a good predictor of more days of rest and to further the consultation in the 6 months prior to the study [190].

The PTSD diagnosis was proportionally more frequent among men than among women veterans; however, the risk of PTSD for combat exposure would be similar in both sexes. The problem is that there is probably a misdiagnosis of PTSD among women; they have more medical problems and would have a continuing relationship between hyperarousal symptoms and physical discomfort [191].

Dobie et al. studied 1259 veterans and found 21.0% of PTSD. Patients with PTSD also had higher scores for psychiatric problems, substance abuse, and exposure to domestic violence and also had a higher risk of physical problems (obesity, smoking, irritable bowel syndrome, fibromyalgia, chronic pelvic pain, polycystic ovary syndrome, asthma, cervical cancer, and stroke) [192].

Personality disorder comorbid with PTSD in women with a history of sexual or nonsexual abuse in adulthood or childhood sexual abuse was not a factor that determines higher percentage of PTSD at the end of treatment; however, women with personality disorder had more symptoms at the end of therapy compared to those who only had PTSD. Hembree et al. attributed this finding to the fact that patients with personality disorder treatment initiated more symptomatic than the control group [193].

The Canadian general population found that a history of childhood physical abuse was accompanied by increased risk of developing comorbid form of alcohol abuse and dependence with PTSD. Physical abuse reached a frequency of 51.4% in PTSD versus 31.4% in without PTSD [116, 194].

We found that, although both female and male patients with PTSD more frequently experienced CV events than those without it, there were significant sex differences in the endpoints influenced by PTSD, underlining the importance of stratification by sex in evaluating risk factors for CV events [195]. In particular, it should be underlined that PTSD was significantly associated with increased incidence of all-cause and CV death in women but not in men. Thus, female patients, when compared with male patients, appear to have been influenced more severely by PTSD [196].

One study examined the lifetime prevalence of trauma exposure and posttraumatic stress disorder (PTSD) in patients with a first psychiatric admission for psychosis. The prevalence of trauma exposure was 68.5%. Female gender and substance abuse were risk factors for trauma exposure. The prevalence of PTSD was 14.3% in the full sample and 26.5% in those with trauma exposure. Other significant risk factors were younger age and trauma exposure that was repeated and ongoing or that involved childhood victimization [197].

#### 28.10 Discussion

Posttraumatic stress disorder is a relatively recent diagnosis. What really forced the American psychiatry to consider this new diagnosis was the frequency and severity of cases observed in soldiers repatriated from the Vietnam War. For many years it

has been a diagnosis exclusive of the battlefield, a field in which women were underrepresented so that indirectly were excluded from the diagnosis. There are few studies that include women in the context of war, so that, at least in this aspect, it is difficult to make an analysis of gender differences. Also most of the literature reviewed equates the concept of biological sex to gender.

The psychopathological differences we found between male and female differ in different studies but primarily there has been a predominance of hyperarousal and avoidance symptoms in women. It is possible that these differences, as well as the increased susceptibility of women to develop PTSD, may be based on the different strategies used by men and women when it comes to regulating their emotions.

Women are more prone to rumination while men often employ strategies unaware that decrease the risk of developing PTSD to the same agent. These findings may be closely related to the gender role that is socially assimilated by a person either male (less expression of emotions, less likely to empathize, etc.) or female (increased expression of emotions, greater ability to talk and think about how you feel, etc.), which is not given by a biological fact, but is associated with a way of being or being in the world and is largely determined by gender.

Despite the many studies reviewed, the reality is that these gender differences are determined by an unexplored world, a variable that today is not included in epidemiological studies and is therefore an important bias in determining the prevalence and mode which present the clinical expression of PTSD.

#### References

- Alarcón R. Posttraumatic stress disorder. Studies in American veterans and their relevance for Latin America. Neuro-Psiquiat Rev Chil. 2002;40(Suppl 2):35–47.
- 2. The Holy Bible. Deuteronomy. 20:1-9.
- Crocq MA, Crocq L. From Shell shock and war neurosis to posttraumatic stress disorder: a history of psychotraumatology. Dialogues Clin Neurosci. 2001;2:47–55.
- 4. Pinel P. Nosographie Philosóphique. Paris: Bailliére; 1978.
- Merskey H. Posttraumatic stress disorder and shell shock. In: Berrios GE, Porter R, editors. A history of clinical psychiatry. London: Athlone Press; 1995.
- Salmon TW. Care and treatment of mental diseases and war neuroses (sell shock) in the British army. Ment Hyg. 1917;1:509–54.
- Poal G. Enter, stay, move. Psychosocial aspects of the relationship between women and employment. Madrid: Siglo XXI; 1993.
- 8. Buenaventura Saez C. Gender socialization and psychopathology: a hypothesis for reflection. In: Gonzalez de Chavez MA, editor. Body and female subjectivity. Health and gender. Madrid: Siglo XXI; 1993.
- Adams CH, Sherer M. Sex-role orientation and psychological adjustment: comparison of MMPI profiles among college women and housewives. J Pers Assess. 1982;46:607–13.
- 10. Bassoff ES, Glass GV. The relationship between sex roles and mental health: a meta-analysis of twenty-six studies. Counseling Psychologist. 1982;10:105–12.
- 11. Taylor MC, Hall JA. Psychological androgyny: theories, methods, and conclusions. Psychol Bull. 1982;92:347–66.
- 12. Orlofsky JL, O'Heron CA. Stereotypic and nonstereotypic sex role trait and behavior orientations: implications for personal adjustment. J Pers Soc Psychol. 1987;52(5):1034–42.
- 13. Flaherty JF, Dusek JB. An investigation of the relationship between psychological androgyny and components of self-concept. J Pers Soc Psychol. 1980;38:984–92.

- 14. Gallacher F, Kieger DM. Sex role orientation and fear. J Psychol. 1995;129(1):41–9.
- 15. Thoronton B, Leo R. Gender typing, importance of multiple roles, and mental health consequences for women. Sex Roles. 1992;27(5–6):307–17.
- 16. Ward LC, Dillon EA. Psychiatric symptom correlates of the Minnesota multiphasic personality inventory masculinity-femininity scale. Psychol Assess. 1990;2(3):286–8.
- 17. Pérez Blasco J, Serra Desfilis E. Influence of traditional female role in anxiety symptoms in a sample of adult women. J Psychol. 1997;13(2):155–61.
- 18. Jezova D, Jurankova E, Mosnarova A, Kriska M, et al. Neuroendocrine response during stress with relation to gender differences. Acta Neurobiol Exp. 1996;56:779–85.
- 19. Yehuda R, Southwich SM, Nussbaum G, Wahby V, et al. Low urinary cortisol excretion in patients with posttraumatic stress disorder. J Nerv Ment Dis. 1990;178:366–9.
- Bremner J, Licinio J, Darness A, Krys Tal JM, et al. Elevated CSF corticotropin-releasing factor concentrations in post-traumatic stress disorder. Am J Psychiatry. 1997;154:624–9.
- 21. Carvajal C. Neurobiological bases and pharmacotherapy of posttraumatic stress disorder. Neuro-Psiquiat Rev Chil. 2002;40(Suppl 2):48–68.
- Rubinow DR, Schmidt PJ. Gonadal steroids, brain and behavior: role of context. Dialogues Clin Neurosci. 2002;4:123–37.
- 23. De Bellis MD, Keshavan MS. Sex differences in brain maturation in maltreatment-related pediatric posttraumatic stress disorder. Neurosci Biobehav Rev. 2003;27:103–17.
- 24. Bremner JD, Vythiliogam M, Vermetten E, Southwick SM, et al. MRI and PET study of deficits in hippocampal structure and function in women with childhood sexual abuse and posttraumatic stress disorder. Am J Psychiatry. 2003;160:924–32.
- 25. Stevens JS, Hamann S. Sex differences in brain activation to emotional stimuli: a meta-analysis of neuroimaging studies. Neuropsychologia. 2012;50:1578–93.
- Lopez-Larson MP, Anderson JS, Ferguson MA, Yurgelun-Todd D. Developmental cognitive neuroscience local brain connectivity and associations with gender and age. Accid Anal Prev. 2010;1:187–97.
- 27. Farrell MR, Sengelaub DR, Wellman CL. Sex differences and chronic stress effects on the neural circuitry underlying fear conditioning and extinction. Physiol Behav. 2013;122:208–15.
- Engman J, Linnman C, Van Dijk KRA, Milad MR. Amygdala subnuclei resting-state functional connectivity sex and estrogen differences. Psychoneuroendocrinology. 2016;63:34–42.
- Compère L, Sperduti M, Gallarda T, Anssens A, Lion S, Delhommeau M, et al. Sex differences in the neural correlates of specific and general autobiographical memory. Front Hum Neurosci. 2016;10:285.
- 30. Alarcón G, Cservenka A, Nagel BJ. Adolescent neural response to reward is related to participant sex and task motivation. Brain Cogn. 2017;111:51–62.
- 31. Wu Y, Li H, Zhou Y, Yu J, Zhang Y, Song M, et al. Sex-specific neural circuits of emotion regulation in the centromedial amygdala. Sci Rep. 2016;6:23112.
- 32. Nugent AC, Bain EE, Thayer JF, Sollers JJ, Drevets WC. Sex differences in the neural correlates of autonomic arousal: a pilot PET study. Int J Psychophysiol. 2011;80:182–91.
- 33. Helpman L, Zhu X, Suarez-Jimenez B, Lazarov A, Monk C, Neria Y. Sex differences in trauma-related psychopathology: a critical review of neuroimaging literature (2014–2017). Curr Psychiatry Rep. 2017;19(12):104.
- Bangasser DA, Valentino RJ. Sex differences in stress-related psychiatric disorders: neurobiological perspectives. Front Neuroendocrinol. 2014;35:303–19.
- 35. Bangasser DA, Wicks B. Sex-specific mechanisms for responding to stress. J Neurosci Res. 2017;95:75–82.
- 36. Gilman TL, DaMert JP, Meduri JD, Jasnow AM. Grin1 deletion in CRF neurons sex-dependently enhances fear, sociability, and social stress responsivity. Psychoneuroendocrinology. 2015;58:33–45.
- 37. Li K, Nakajima M, Ibañez-Tallon I, Heintz N. A cortical circuit for sexually dimorphic oxytocin-dependent anxiety behaviors. Cell. 2016;167:60–72.e11.

- 38. Lukkes JL, Norman KJ, Meda S, Andersen SL. Sex differences in the ontogeny of CRF receptors during adolescent development in the dorsal raphe nucleus and ventral tegmental area. Synapse. 2016;70:125–32.
- Howerton AR, Roland AV, Fluharty JM, et al. Sex differences in corticotropin-releasing factor receptor-1 action within the dorsal raphe nucleus in stress responsivity. Biol Psychol. 2014;75:873–83.
- Bangasser DA, Curtis A, Reyes BA, et al. Sex differences in corticotropin-releasing factor receptor signaling and trafficking: potential role in female vulnerability to stress-related psychopathology. Mol Psychiatry. 2010;15(877):896–904.
- 41. Bangasser DA, Reyes BA, Piel D, et al. Increased vulnerability of the brain norepinephrine system of females to corticotropin-releasing factor overexpression. Mol Psychiatry. 2013;18:166–73.
- 42. Bangasser DA, Dong H, Carroll J, et al. Corticotropin-releasing factor overexpression gives rise to sex differences in Alzheimer's disease-related signaling. Mol Psychiatry. 2016;22(8):1126–33.
- Sheikh JI, Leskin GA, Klein DF. Gender differences in panic disorder: findings from the National Comorbidity Survey. Am J Psychiatry. 2002;159:55–8.
- 44. Kessler RC, Petukhova M, Sampson NA, Zaslavsky AM, Wittchen HU. Twelve-month and lifetime prevalence and lifetime morbid risk of anxiety and mood disorders in the United States. Int J Methods Psychiatr Res. 2012;21:169–84.
- Breslau N. Gender differences in trauma and posttraumatic stress disorder. J Gend Specif Med. 2002;5:34–40.
- 46. Tolin DF, Foa EB. Sex differences in trauma and posttraumatic stress disorder: a quantitative review of 25 years of research. Psychol Bull. 2006;132:959–92.
- 47. Wiersielis KR, Wicks B, Simko H, et al. Sex differences in corticotropin releasing factorevoked behavior and activated networks. Psychoneuroendocrinology. 2016;73:204–16.
- 48. Cole RD, Kawasumi Y, Parikh V, Bangasser DA. Corticotropin releasing factor impairs sustained attention in male and female rats. Behav Brain Res. 2016;296:30–4.
- 49. Viau V, Bingham B, Davis J, Lee P, Wong M. Gender and puberty interact on the stress-induced activation of parvocellular neurosecretory neurons and corticotropinreleasing hormone messenger ribonucleic acid expression in the rat. Endocrinology. 2005;146:137–46.
- Carey MP, Deterd CH, de Koning J, Helmerhorst F, De Kloet ER. The influence of ovarian steroids on hypothalamic-pituitary-adrenal regulation in the female rat. J Endocrinol. 1995;144:311–21.
- Atkinson HC, Waddell BJ. Circadian variation in basal plasma corticosterone and adrenocorticotropin in the rat: sexual dimorphism and changes across the estrous cycle. Endocrinology. 1997;138:3842–8.
- Curtis AL, Bethea T, Valentino RJ. Sexually dimorphic responses of the brain norepinephrine system to stress and corticotropin-releasing factor. Neuropsychopharmacology. 2006;31:544–54.
- Bangasser DA, Wiersielis KR. Sex differences in stress responses: a critical role for corticotropin-releasing factor. Hormones. 2018;17:5–13.
- 54. Ferrando Bundío L. Mental health and gender in clinical practice (Ch. 2). Barcelona: Ars Médica; 2007. p. 19–23.
- Punamaki RL, Komproe IH. The role of peritraumatic dissociation and gender in the association between trauma and mental health in a Palestinian community simple. Am J Psychiatry. 2005;162:545–51.
- 56. Mitev YA, Dawish M, Wolf SS, Holsboer F, Almeida OF, Patchev VK. Gender differences in the regulation of 3 alpha-hydroxysteroid dehydrogenase in rat brain and sensitivity to neurosteroid-mediated stress protection. Neuroscience. 2003;20:541–9.
- 57. Fairbank J. Posttraumatic stress disorder. London: M. Dunitz; 2000.
- 58. Breslau N, Davis GC. Traumatic events and posttraumatic stress disorder in an urban population of young adults. Arch Gen Psychiatry. 1991;48(3):216–22.

- 59. Stein MB, Walker JR, Hazen AL, Forde DR. Full and partial posttraumatic stress disorder: findings from a community survey. Am J Psychiatry. 1997;154(8):1114–9.
- Ezkurra J, Glez Pinto A, Gutierrez M. Psychiatry and women. Madrid: Grupo Aula Médica, SL; 2006.
- Correa E, Jadresic E. Psychopathology of women. 2nd ed. Chile: Editorial Mediterraneo;
   2005. Chapter 17.
- 62. McLaughlin KA, Conron KJ, Koenen KC, Gilman SE. Childhood adversity, adult stressful life events, and risk of past-year psychiatric disorder: a test of the stress sensitization hypothesis in a population-based sample of adults. Psychol Med. 2010;40(10):1647–58.
- 63. Pereda N, Guilera G, Forns M, Gomez-Benito J. The prevalence of child sexual abuse in community and student samples: a meta-analysis. Clin Psychol Rev. 2009;29(4):328–38.
- 64. Stoltenborgh M, van Ijzendoorn MH, Euser EM, Bakermans-Kranenburg MJ. A global perspective on child sexual abuse: meta-analysis of prevalence around the world. Child Maltreat. 2011;16(2):79–101.
- 65. Andrews G, Corry J, Slade T, Issakidis C, Swanston H. Child sexual abuse. In: Ezzati M, Lopez A, Rodgers A, Murray C, editors. Comparative quantification of health risks: global and regional burden of disease attributable to selected major risk factors, vol. 2. Geneva: World Health Organization; 2004. p. 1851–940.
- 66. Sancheza SE, Pineda O, Chavesc DZ, Zhong Q-Y, Gelayed B, Simone GE, Rondonf MB, Williamsd MA. Childhood physical and sexual abuse experiences associated with posttraumatic stress disorder among pregnant women. Ann Epidemiol. 2017;27(11):716–23.
- 67. Stein MB, Walker JR, Forde DR. Gender differences in susceptibility to posttraumatic stress disorder. Behav Res Ther. 2000;38:619–28.
- 68. Pulcino T, Galea S, Ahern J, Resnick H, et al. Posttraumatic stress in women after the September 11 terrorist attacks in New York City. J Women's Health. 2003;12:809–20.
- 69. Fullerton C, Ursano R, Epstein R, Crowley B, et al. Gender differences in posttraumatic stress disorder after motor vehicle accidents. Am J Psychiatry. 2001;158:1486–91.
- Ruggiero KJ, Smith DW, Hanson RF, Resnick HS, et al. Is disclosure of childhood rape associated with mental health outcome? Results from the National Women's Study. Child Maltreat. 2004;9:62–77.
- 71. Soderquist J, Wijma K, Wijma B. Traumatic stress in late pregnancy. J Anxiety Disord. 2004;18:127–42.
- 72. Engelhard IM, van der Hount MA, Arntz A. Posttraumatic stress disorder after pregnancy loss. Gen Hosp Psychiatry. 2001;23:62–6.
- 73. Lindberg NM, Wellisch DK. Identification of traumatic stress reactions in women at increased risk of breast cancer. Psychosomatics. 2004;45:7–16.
- 74. Sutherland C, Bybee D, Sullivan C. The long-term effects of battering on women's health. J Women's Health. 1998;4:41–70.
- 75. McCann IL, Pearlman LA. Psychological trauma and the adult survivor: theory, therapy, and transformation. New York: Brunner/Mazel; 1990.
- 76. Resick PA, Schnicke MK. Cognitive processing therapy for rape victims: a treatment manual. Newbury Park: Sage Publications; 1993.
- 77. Shin KM, Cho S-M, Lee SH, Chung YK. A pilot prospective study of the relationship among cognitive factors, shame, and guilt proneness on posttraumatic stress disorder symptoms in female victims of sexual violence. Korean Med Sci. 2014;29:831–6.
- 78. Ursano RJ, Kao T, Fullerton CS. PTSD and meaning: human structuring chaos. J Nerv Ment Dis. 1992;180:756–9.
- 79. Resnick HS, Kilpatrick DG, Dansky BS, Saunders BE, et al. Prevalence of civilian trauma and posttraumatic stress disorder in a representative national sample of women. J Consult Clin Psychol. 1993;61:984–91.
- 80. Davidson JR. Trauma: the impact of posttraumatic stress disorder. Psychopharmacol J. 2000;14(2 Suppl):S5–12.
- 81. Rock Bennasar M. In: Psychiatry SL, editor. Neurotic disorders. Barcelona: Spanish Society of Psychiatry and Spanish Society of Biological Psychiatry; 2002.

- 82. Dick K. "The Invisible War" United States. 2012.
- 83. Breslau N, Davis GC, Peterson EL, Schultz L. Psychiatric sequelae of posttraumatic stress disorder in women. Arch Gen Psychiatry. 1997;54:81–7.
- 84. Kohen D. Women and mental health. New York: Oxford University Press; 2010.
- 85. Kessler RC, Sonnega A, Bromet E, Hughes ME, et al. Posttraumatic stress disorder in the National Comorbidity Survey. Arch Gen Psychiatry. 1995;52:1048–60.
- Breslau N, Davis GC, Peterson EL, Schultz L. Trauma and posttraumatic stress disorder in the community: the 1996 Detroit Area Survey of Trauma. Arch Gen Psychiatry. 1998;55:626–32.
- 87. Cienachanowski P, Katon W. Posttraumatic stress disorder. Last updated 30 Nov 2012. Uptodate. com. Available at:. http://www.uptodate.com/contents/posttraumatic-stress-disorder.
- 88. Viana MC, de Souza Dantas H, Farid Gattaz W, Andrade LH. Gender differences in exposure to traumatic events and post-traumatic stress disorder in the São Paulo Megacity Mental Health Survey, Brazil: prevalence, distribution and conditional risk. 5th World Congress on Women's Mental Health; 2013.
- Vieweg WV, Julius DA, Fernandez A, Beatty-Brooks M, Hettema JM, Pandurangi AK. Posttraumatic stress disorder: clinical features, pathophysiology, and treatment. Am J Med. 2006;119(5):383.
- Macmillan HL, Fleming JE, Trocme N, Boyle MJ, Wong M, Racine UA, Beardslee WR, Offord DR. Prevalence of child physical and sexual abuse in the community: results from the Ontario Health Supplement. Am J Med. 1997;278:131–5.
- 91. Horowitz K, Weine S, Jekel J. PTSD symptoms in urban adolescent girls: compounded community trauma. J Acad Child Adolesc Psychiatry. 1995;34:1353–61.
- Byrne CA, Resnick HS, Kulpatrick DG, Best CL, et al. The socioeconomic impact of interpersonal violence on women. J Consult Clin Psychol. 1999;67:362–6.
- 93. Polimanti R, et al. A putative causal relationship between genetically determined female body shape and posttraumatic stress disorder. Genome Med. 2017;9:99.
- 94. Howard LM. Domestic violence and mental health. 5th World Congress on Women's Mental Health; 2013.
- Echeburúa E, de Corral P, Amor PJ. Differential profiles of PTSD in different types of victims. Analysis and behavior modification, vol. 24(96), 1998.
- Gaviria S. Violence against women in South America. 5th World Congress on Women's Mental Health: 2013.
- 97. McCauley J, Kern DE, Kolodner K, Hill L, et al. The battering syndrome: prevalence and clinical characteristics of domestic violence in primary care internal medicine practices. Ann Intern Med. 1995;123:737–46.
- 98. Browne A. Violence against women by male partners: prevalence, outcomes, and policy implications. Am Psychol. 1993;48:1077–87.
- 99. Sassetti MR. Domestic violence. Prim Care. 1993;20:289-305.
- Polusny MA, Follette VM. Long-term correlates of child sexual abuse; theory and review of the empirical literature. Appl Prev Psychol. 1995;4:143–66.
- 101. Vizcarra MB, Cortes J, Bustos L, Alarcon M, et al. Violencia married in the city of Temuco: a study of prevalence and associated factors. Chile Rev Med. 2001;129:1405–12.
- 102. Arcos E, Uarac M, Molina I, Repossi A, et al. Impact of domestic violence on reproductive and neonatal health. Rev Med Chile. 2003;131:1454–62.
- 103. Russell DE. The incidence and prevalence of intrafamilial and extrafamilial sexual abuse of female children. Child Abuse Negl. 1982;7:133–46.
- 104. Greenfeld LA. Sex offenses and offenders: an analysis on data on rape and sexual assault. Washington, DC: U.S. Department of Justice; 1997. Publication # NCH 163.
- 105. Black MC, Basile KC, Breiding MJ, Smith SG, Walters ML, Merrick MT, November MRS. National intimate partner and sexual violence survey. Atlanta, GA: Centers for Disease Control, National Center for Injury Prevention and Control, Division of Violence Prevention; 2011.
- 106. Golding JM. Intimate partner violence as a risk factor for mental disorders: a meta-analysis. Violence Against Women. 1999;14:99–132.

- 107. Weiss NH, Johnson CD, Contractor A, Peasant C, Swan SC, Sullivan TP. Racial/ethnic differences moderate associations of coping strategies and posttraumatic stress disorder symptom clusters among women experiencing partner violence: a multigroup path analysis. Anxiety Stress Coping. 2017;30(3):347–63. https://doi.org/10.1080/10615806.2016.1228900.
- 108. Norris FH, Foster JD, Weisshaar DL. The epidemiology of sex differences in PTSD across developmental, societal, and research contexts. In: Kimerling R, Ouimette P, Wolfe J, editors. Gender and PTSD. The Guilford Press: New York; 2002.
- 109. Hourani L, Williams J, Bray R, Kandel D. Gender differences in the expression of PTSD symptoms among active duty military personnel. J Anxiety Disord. 2015;29:101–8.
- 110. Felliti VJ, Anda RF, Nordenberg D, Williamson DF, et al. Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: the adverse childhood experience (ACE) study. Am J Prev Med. 1998;14:145–58.
- 111. Ticona Benavente SB, Santos Monteiro EM, Siqueira Costa AL. Diferencias de género en la percepción de estrés y estrategias de afrontamiento en pacientes con cáncer colorrectal que reciben quimioterapia. Aquichan. 2015;15(1):9–20. https://doi.org/10.5294/aqui.2015.15.1.2.
- 112. Levenson R, Carstensen L, Gottman J. The influence of age and gender on affect, physiology and their interrelations: a study of long-term marriages. J Pers Soc Psychol. 1994;67:56–68.
- 113. Kessler RC. Posttraumatic stress disorder: the burden to the Individual and to society. J Clin Psychiatry. 2000;61(Suppl 5):4–12.
- 114. Brody LR. On understanding gender differences in the expression on emotion: gender roles, socialization and language. In: Ablon S, Brown D, Khantzian E, Mack J, editors. Human feelings: exploration in affect development and meaning. Hillsdale, NJ: Analytic Press; 1993. p. 89–121.
- 115. Gross JJ. The emerging field of emotion regulation: an integrative review. Rev Gen Psychol. 1998;2:271–99.
- 116. Lennon R, Eisenberg N. Gender and age differences in empathy and sympathy. In: Eisenberg N, Strayer J, editors. Empathy and its development. New York: Cambridge University Press; 1987. p. 195–217.
- 117. Hoek-Seam N. Susan. Emotion regulation and psychopathology: the role of gender. Annu Rev Clin Psychol. 2012;8:161–87.
- 118. Olff M, Langeland W, Draijer N, Gersons BPR. Gender differences in posttraumatic stress disorder. Psychol Bull. 2007;133:183–204.
- 119. Eisler RM, Skidmore JR. Masculine gender role stress scale development and component factors in the appraisal of stressful situations. Behav Modif. 1987;11(2):123–36.
- Cromer LDM, Smyth JM. Making meaning of trauma: trauma exposure doesn't tell the whole story. J Contemp Psychother. 2010;40(2):65–72. https://doi.org/10.1007/s10879-009-9130-8.
- 121. Hu J, Feng B, Zhu Y, Wang W, Xie J, Zheng X. Gender differences in PTSD: susceptibility and resilience. 2017. https://doi.org/10.5772/65287.
- 122. Hyde JS, Mezulis AH, Abramson LY. The ABCs of depression: integrating affective, biological, and cognitive models to explain the emergence of the gender difference in depression. Psychol Rev. 2008;115:291–313.
- 123. Nolen-Hoeksema S. Responses to depression and their effects on the duration of depressive episodes. J Abnorm Psychol. 1991;100:569–82.
- 124. Zahn-Waxler C, Shirtcliff EA, Marceau K. Disorders of childhood and adolescence: gender and psychopathology. Annu Rev Clin Psychol. 2008;4:275–303.
- 125. Hayes SC, Wilson KG, Gifford EV, Follette VM, Strosahl KD. Experiential avoidance and behavioral disorders: a functional dimensional approach to diagnosis and treatment. J Consult Clin Psychol. 1996;64:1152–68.
- 126. Billings AG, Moos RH. The role of coping responses and social resources in attenuating the stress of life events. J Behav Med. 1981;4:139–57.
- 127. Eisenberg N, Hofer C, Vaughan J. Effortful control and its socioemotional very important consequences. See Gross. 2007;2007:287–306.

- 128. Kochanska G, Murray KT, Harlan ET. Effortful control in early childhood: continuity and change, antecedents, and implications for social development. Dev Psychol. 2000;36:220–32.
- 129. Rothbart MK, Bates JE. Temperament. In: Damon W, Eisenberg N, editors. Handbook of child psychology, Social, emotional and personality development, vol. 3. New York: Wiley; 2006. p. 105–76.
- Aldana A, Nolen-Hoeksema S, Schweizer S. Emotion regulation strategies across psychopathology: a meta-analytic review. Clin Psychol Rev. 2010;30:217–37.
- 131. Mor N, Winquist J. Self-focused attention and negative affect: a meta-analysis. Psychol Bull. 2002;128:638–62.
- 132. Rood L, Roelofs J, Bogels SM, Nolen-Hoeksema S, Schouten E. The influence of emotion-focused rumination and distraction on depressive symptoms in non-clinical youth: a meta-analytic review. Clin Psychol Rev. 2009;29:607–16.
- Watkins ER. Constructive and unconstructive repetitive thought. Psychol Bull. 2008:134:163–206.
- 134. Clohessy S, Ehlers A. PTSD symptoms, response to intrusive memories and coping in ambulance service workers. Br J Clin Psychol. 1999;38:251–65.
- 135. Fresco DM, Frankel AN, Mennin DS, Turk CL, Heimberg RG. Distinct and overlapping features of rumination and worry: the relationship of cognitive production to negative affective states. Cogn Ther Res. 2002;26:179–88.
- 136. Harrington JA, Blankenship V. Ruminative thoughts and their relation to depression and anxiety. J Appl Soc Psychol. 2002;32:465–85.
- 137. Mayou RA, Ehlers A, Bryant B. Posttraumatic stress disorder after motor vehicle accidents: 3-year follow-up of a prospective longitudinal study. Behav. Res Ther. 2002;40:665–75.
- 138. Nolen-Hoeksema S. The role of rumination in depressive disorders and mixed anxiety/depressive symptoms. J Abnorm Psychol. 2000;109:504–11.
- Schwartz JAJ, Koenig LJ. Response styles and negative affect among adolescents. Cogn Ther Res. 1996;20:13–36.
- 140. Segerstrom SC, Tsao JCI, Alden LE, Craske MG. Worry and rumination: repetitive thought as a concomitant and predictor of negative mood. Cogn Ther Res. 2000;24:671–88.
- 141. Andrews B, Brewin CR, Rose S. Gender, social support, and PTSD in victims of violent crime. J Traum Stress. 2003;16(4):421–7.
- 142. Crevier MG, Marchand A, Nachar N, Guay S. Overt social support behavior. Psychol Trauma. 2014;6(5):519–26.
- 143. Zoellner LA, Foa EB, Brigidi BD. Interpersonal friction and PTSD in female victims of sexual and nonsexual assault. J Traum Stress. 1999;12(4):689–700.
- 144. Jain KM, Davey-Rothwell M, Crossnohere NL, Latkin CA. Post-traumatic stress disorder, neighborhood residency and satisfaction, and social network characteristics among underserved women in Baltimore, Maryland. Women's Health Issues. 2018;28(3):273–80.
- 145. Mellings TMB, Alden LE. Cognitive processes in social anxiety: the effects of self-focus, rumination, and anticipatory processing. Behav Res Ther. 2000;38:243–57.
- 146. Ehlers A, Mayou RA, Bryant B. Psychological predictors of chronic posttraumatic stress disorder after motor vehicle accidents. J Abnorm Psychol. 1998;107:508–19.
- 147. Murray J, Ehlers A, Mayou RA. Dissociation and post-traumatic stress disorder: two prospective studies of road traffic accident survivors. Br J Psychiatry. 2002;180:363–8.
- 148. McLaughlin KA, Nolen-Hoeksema S. Transdiagnostic rumination as a factor in depression and anxiety. Behav Res Ther. 2011;49:186–93.
- Watkins ER. Depressive rumination and co-morbidity: evidence for brooding as to transdiagnostic process. J Ration Emot Cogn Behav Ther. 2009;27:160–75.
- 150. Wenzlaff RM, Wegner DM. Thought suppression. Annu Rev Psychol. 2000;51:59–91.
- Fischer AH, Rodriguez Mosquera AM, van Vianen AE, Manstead AS. Gender and culture differences in emotion. Emotion. 2004;1:87–94.

- 152. Olff M. Sex and gender differences in post-traumatic stress disorder: an update. Eur J Psychotraumatol. 2017;8:1351204.
- 153. Benight CC, Bandura A. Social cognitive theory of posttraumatic recovery: the role of perceived self-efficacy. Behav Res Ther. 2004a;42:1129–48.
- 154. Bosmans MW, Benight CC, van der Knaap LM, Winkel FW, van der Velden PG. The associations between coping self-efficacy and posttraumatic stress symptoms 10 years postdisaster: differences between men and women. J Trauma Stress. 2013;26(2):184–91.
- 155. Benight CC, Cieslak R, Molton IR, Johnson LE. Self-evaluative appraisals of coping capability and posttraumatic distress following motor vehicle accidents. J Consult Clin Psychol. 2008;76(4):677–85.
- 156. Lambert JE, Benight CC, Wong T, Johnson LE. Cognitive bias in the interpretation of physiological sensations, coping self-efficacy, and psychological distress after intimate partner violence. Psychol Trauma Theory Res Pract Policy. 2013;5(5):494–500.
- 157. Luszczynska A, Benight CC, Cieslak R. Self-efficacy and health-related outcomes of collective trauma: a systematic review. Eur Psychol. 2009a;14(1):51–62.
- 158. Samuelson KW, Bartel A, Valadez R, Jordan JT. PTSD symptoms and perception of cognitive problems: the roles of posttraumatic cognitions and trauma coping self-efficacy. Psychol Trauma Theory Res Pract Policy. 2017;9:537–44. https://doi.org/10.1037/tra0000210.
- 159. Smith AJ, Abeyta AA, Hughes M, Jones RT. Persistent grief in the aftermath of mass violence: the predictive roles of posttraumatic stress symptoms, self-efficacy, and disrupted worldview. Psychol Trauma Theory Res Pract Policy. 2015;7(2):179–86.
- 160. Boals A. Events that have become central to identity: gender differences in the centrality of events scale for positive and negative events. Appl Cogn Psychol. 2010;24:107–21.
- 161. Solomon Z, Gelkopf M, Bleich A. Is terror gender-blind? Gender differences in reaction to terror events. Soc Psychiatry Psychiatr Epidemiol. 2005;40(12):947–54.
- 162. Wei-Na MA, Hua XU. Relationship among life events, self-efficacy and emotion in middle school students. Chin J Clin Psychol. 2006;3:303–5.
- 163. Wolfe T, Ray S. The role of event centrality, coping and social support in resilience and post-traumatic growth among women and men. Int J Ment Health Promot. 2015;17(2):78–96.
- 164. Barrett L, Bliss-Moreau E. She's emotional. He's having a bad day: attributional Explanations for emotion stereotypes. Emotion. 2009;9:648–58.
- 165. Brody LR, Hall JA. Gender and emotion in context. In: Lewis M, Haviland JM, Barrett LF, editors. Handbook of emotions. New York: Guilford; 1993. p. 89–121.
- 166. Deaux K, Major B. Putting gender into context: an interactive model of gender-related behavior. Psychol Rev. 1987;94:369–89.
- 167. Fabes RA, Martin CL. Gender and age stereotypes of emotionality. Staff Soc Psychol Bull. 1991;17:532–40.
- 168. Fischer AH, Manstead ASR. The relation between gender and emotions in different cultures. In: Fischer AH, editor. Gender and emotion: social psychological perspectives. New York: Cambridge University Press; 2000. p. 71–94.
- 169. LaFrance M, Banaji M. Toward a reconsideration of the gender-emotion relationship. In: Clark MS, editor. Emotion and social behavior. Newbury Park, CA: Sage; 1992. p. 178–201.
- 170. Shields SA. Women, men, and the dilemma of emotion. In: Shaver P, Hendrick C, editors. Sex and gender: review of personality and social psychology. Thousand Oaks, CA: Sage; 1987. p. 229–50.
- 171. Tamres LK, Janicki D, Helgeson VS. Sex differences in coping behavior: a meta-analytic review and an examination of relative coping. Staff Soc Psychol Rev. 2002;6:2–30.
- 172. Mauss IB, Evers C, Wilhelm FH, Gross JJ. How to bite your tongue without blowing your top: implicit evaluation of emotion regulation predicts affective responding to anger provocation. Personal Soc Psychol Bull. 2006;32:589–602.

- 173. Franciskovic T, Stevanovic A, Colic M. Coping strategies and PTSD among female civilian victims of war. 5th World Congress on Women's Mental Health; 2013.
- 174. Howell HB, Brawman-Mintzer O, Monnier J, Yonkers KA. Generalized anxiety disorder in women. Psychiatr Clin North Am. 2001;24:165–78.
- 175. Breslau N, Davis G. Posttraumatic stress disorder in an urban population of young adults: risk factors for chronicity. Am J Psychiatry. 1992;149:671–5.
- 176. Buta E, Masheb R, Gueorguieva R, Bathulapalli H, Brandt CA, Goulet JL. Posttraumatic stress disorder diagnosis and gender are associated with accelerated weight gain trajectories in veterans during the post-deployment period. Eat Behav. 2018;29:8–13.
- 177. Woodhead C, Wessely S, Jones N, Fear NT, Hatch SL. Impact of exposure to combat during deployment to Iraq and Afghanistan on mental health by gender. Psychol Med. 2012;42(4):1985–96.
- 178. Simons JS, Gaher RM, Jacobs GA, Meyer D, Johnson-Jimenez E. Associations between alcohol use and PTSD symptoms among American Red Cross Disaster Relief Workers responding to the 9/11/2001 attacks. Am J Drug Alcohol Abuse. 2005;31(2):285–304.
- 179. Ginsburg GS, Silverman WK. Gender role orientation and fearfulness in children with anxiety disorders. J Anxiety Disord. 2000;14:57–67.
- 180. Roy K. Brownhill S, gender differences in depression risk and coping factors in a clinical sample. Acta Psychiatr Scand. 2002;106:45–53.
- Bundio LF. Mental health and gender in clinical practice. 1st ed. Group Communication Ars XXI, SL; 2007.
- 182. Brady KT, et al. Comorbidity of psychiatric disorders and posttraumatic stress disorder. J Clin Psychiatry. 2000;61:22–32.
- Breslau N. Epidemiologic studies of trauma, posttraumatic stress disorder and other psychiatric disorders. Can J Psychiatr. 2002;47:923–9.
- 184. Brady KT. Posttraumatic stress disorders and comorbidity: recognizing the many faces of PTSD. J Clin Psychiatry. 1997;58(Suppl 9):12–5.
- 185. Carvajal C, González M, Carbonell CG, Trucco M. PTSD in work accidents. Neuro-Psiquiat Rev Chil. 1997;35:161–5.
- 186. Brown PJ, Recupero PR, Stout R. PTSD substance abuse comorbidity and treatment utilization. Addict Behav. 1995;20:251–4.
- Danky BS, Roitsch JC, Brady KT, Saladin ME. Posttraumatic stress disorder. Posttraumatic stress disorder and substance abuse. Use of research in a clinical setting. J Trauma Stress. 1997;10:141–8.
- 188. Kimerling R. An investigation of sex differences in non psychiatric morbidity associated with posttraumatic stress disorder. J Am Med Women's Assoc. 2004;59:42–7.
- 189. Resnick P. An exploration of PTSD and MDD comorbidity. Presented at the 150th Annual Meeting. New York: American Psychiatric Association; 2004.
- 190. Stein MB, Lang AJ, Lafaye C, Satz L, et al. Relationship of sexual assault history to somatic symptoms and health anxiety in women. Gen Hosp Psychiatry. 2004;26(3):178–83.
- 191. Kimerlin R, Clum G, Wolfe J. Relationships among trauma exposure, chronic posttraumatic stress disorders symptoms and self reported health in women: replication and extension. J Trauma Stress. 2000;13:115–28.
- 192. Dobbie DJ, Kivlahan DR, Maynard C, Bush K, et al. Posttraumatic stress disorder in female veterans: association with self-reported health problems and functional impairment. Arch Intern Med. 2004;164:394–400.
- 193. Hembree EA, Cachil SP, Foa EB. Impact of personality disorder on treatment outcome form female assault survivors with chronic posttraumatic stress disorder. J Personal Disord. 2004;18:117–27.
- 194. Van Ameringen MA, Mancini CL, Pipe B, Oakman D et al. Chilc abuse and the development of PTSD in a Canadian epidemiological sample. Presented at the 157th Annual Meeting. New York: American Psychiatry Association; 2004.

- 195. Gohar A, Schnabel RB, Hughes M, Zeller T, Blankenberg S, Pasterkamp G, den Ruijter H. Underrepresentation of sex in reporting traditional and emerging biomarkers for primary prevention of cardiovascular disease: a systematic review. Eur Heart J Qual Care Clin Outcomes. 2015;2:99–107.
- 196. Onose T, Sakata Y, Nochioka K, Miura M, Yamauchi T, Tsuji K, Abe R, Oikawa T, Kasahara S, Sato M, Shiroto T, Miyata S, Takahashi J, Shimokawa H. Sex differences in post-traumatic stress disorder in cardiovascular patients after the Great East Japan Earthquake: a report from the CHART-2 Study. Eur Heart J Qual Care Clin Outcomes. 2017;3:224–33.
- 197. Neria Y, Bromet EJ, Sievers S, Lavelle J, Fochtmann LJ. Trauma exposure and post-traumatic stress disorder in psychosis: findings from a first admission cohort. J Consult Clin Psychol. 2002;70:246–51.



# **Gender and First Psychotic Episodes** in Adolescence

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#### **Abstract**

Research findings in first psychotic episodes in adolescence reveal the existence of differences between men and women in the clinical characteristics of the illness. Biological differences between men and women interacting with the predisposing factors that may, in turn, be influenced by social and cultural factors may explain differences in the etiopathogenesis and clinical expression of psychosis between males and females.

The male gender could lead to increased susceptibility to neurodevelopmental abnormalities as well as to a predisposition to substance abuse that could confer to the male gender to be more vulnerable to suffer more severe psychosis of neurodevelopmental origin.

On the other hand, the stress and traumatic experiences as a risk factor for psychosis may have a greater weight in the female gender. Given this, we should consider the possible predominance of the female gender in psychotic disorders associated with trauma.

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#### 29.1 Introduction

Gender- and sex-related differences in prevalence, clinical expression, and outcome of psychosis have long been recognized. The onset of psychotic symptoms before 18 years old is referred to as early-onset psychosis (EOP) or adolescent-onset psychosis [1].

Previous studies showed that men usually develop the illness between 18 and 25 years old, while in women, the mean age of onset is 25–35 years old. Despite this, the onset distribution curves for males and females are not isomorphic [2–4].

In patients with first-episode psychosis (FEP), it was observed that before the onset of psychosis, females were more likely to have a history of suicide attempts and depression, and they are more likely to have depressive symptoms [5]. Conversely, males had a worst insight, longer duration of untreated psychosis (DUP), and marked substance use problems that were evident prior to admission and persisted through treatment.

On the other hand, longitudinal studies of schizophrenia and other psychotic syndromes in people younger than 25 years reveal that some variables may predict symptomatic remission at the end of the follow-up period [6], such as female sex, an older age of onset of psychosis, and shorter DUP.

These findings reveal the existence of differences between men and women in the clinical characteristics and outcome of psychosis that point out the role of sex and gender as a relevant variable to take in account in the study of psychosis in child and adolescents that may help to better understand some etiopathogenic mechanism of the illness.

Along with this chapter, we will review and discuss current findings regarding this topic in adolescent-onset psychosis.

## 29.2 Epidemiology

Epidemiologic data in EOP and FEP has been growing in the last years, but it is still scarce, and even more in subjects younger than 18 years old.

As neurodevelopmental disorders, psychotic syndromes and FEP usually show their first manifestations during childhood and adolescence, with 11–18% of patients present their FEP before age 18 [1, 3].

In the past, it was accepted that the incidence and prevalence of schizophrenia was the same in men and women [2], but in the present, like other studies in psychosis and schizophrenia have shown, when we focus on EOP and FEP, the most replicated result is the higher incidence rate in males versus females [7].

In the ABC study, Häfner et al. [8], showed significant differences in the age of onset of men psychosis with a peak of first admissions in their early 20s (18–25 years old) in compared with women in their late 20s (25–35 years old). Although it extends to the main content of the topic, it is important to highlight that this is due

to an emergence of the second peak of incidence in women beyond 45 years, which could explain the difference in the incidence throughout life and similar prevalence in both sexes [9, 10].

These data are more pronounced when analyzed with more restrictive criteria. For example, if schizoaffective psychoses are not included, women might be underrepresented [11, 12]. However, a higher incidence in men (ratio 1.42) is maintained and confirmed in a recent meta-analysis using data from studies with standard diagnostic criteria [13].

## 29.3 Sex and Gender Differences in the Early Stages of Psychotic Illness

#### 29.3.1 Clinical Characteristics

The most common manifestations in young people with psychosis are hallucinations, impaired functioning, flattened affect, and social withdrawal [4].

Gender differences in symptom expression have important implications, such as determining treatment regimens and understanding gender differences in treatment response [14]. Nevertheless, most studies found no significant differences in clinical symptoms [15, 16].

Regarding the symptomatology of patients at risk, some studies described men showing more negative symptoms, violent behavior, and disorganized communication. In contrast, women showed more depression and social anxiety and positive psychotic symptoms, such as delusions or paranoia [9]. In contrast, new studies also found no gender differences in symptomatology in at-risk patients [17].

Another study showed that, when the first self-perceived signs of the disease were assessed, women first noticed subthreshold positive and affective symptoms more frequently, while men more frequently first noticed negative and cognitive symptoms [18].

These results are in line with some previous studies that have investigated gender differences in current symptomatology in FEP patients [19, 20]. However, other studies could not confirm these findings and did not reveal significant gender differences in the psychopathology of FEP patients [17, 21, 22]. In an attempt to synthesize the above findings, Heitz and colleagues [18] speculated that although small gender differences in psychotic symptoms may exist, the size of this effect is probably small, such that differences in the statistical power of the studies led to heterogeneous results.

The assessment of symptoms in first-episode psychosis is also inconclusive [9]. Studies with patients with early-onset schizophrenia (EOS) have found that women presented more anxiety, inappropriate mood, higher levels of affective symptoms, and bizarre behavior than men [5, 23]. However, in recent studies, just as we have indicated in long-term psychosis and at-risk patients, no significant gender differences were found [24].

#### 29.3.2 Premorbid Adjustment and Duration Untreated Psychosis

Various studies replicate the lowest age and worst premorbid adjustment in males previously found in adult samples [13, 24]. Generally, women are older than men and have a shorter duration of untreated disease.

A large body of research has focused on the period preceding the onset of psychosis, as it may help to understand the underlying mechanisms that predispose to the disease [14, 17]. Some of these studies, focusing on the level of functioning prior to disease onset, find gender differences in premorbid adjustment [25].

Males exhibit more severe premorbid impairment with a faster deterioration than females. The impairment of premorbid adjustment has been associated with poorer outcome in samples of first psychotic episodes both in adult [26] and in early onset [27].

The better premorbid functioning of women by social and academic factors has been explained due to a later onset of the disease, an increased ability to maintain social relationships, greatest educational achievements, and more active life before the first psychotic episode [8].

In addition, some authors also suggest that estrogens, with effects on both neuro-development and neurotransmission, may play a neuroprotective role in women [28, 29]. As we pointed out more widely below, the incidence is low in women younger than 40 years. Besides, the course of the disease is more favorable in younger women than in those older than 40 years with a deteriorating course of illness around and after menopause [28].

On the other hand, the worst premorbid adjustment could be explained by both the neurodevelopmental model that posits that the illness is the end state of an abnormal neurodevelopmental processes that started years before to the illness onset, as well as by the association between earlier onset of the disease, a more insidious onset, and a predominance of negative symptoms in men [14].

Another variable linked to the early phases of the illness is the duration of untreated psychosis (DUP); this variable was found, in several samples, to be longer in males compared to women [30], and some studies of DUP in adolescent-onset psychosis found that DUP is higher regarding the adult patients.

Even in adolescent samples, the longer DUP was associated with younger age of onset of the psychosis and to a higher lifetime cannabis use [31]. Evidence of this data is still scarce. A meta-analysis, unlike previous studies, indicates that DUP is not influenced by gender; the authors said that a possible explanation of the previous interactions observed between gender DUP may be dependent on study-specific factors as the heterogeneity regarding samples and diagnosis criteria [32].

## 29.4 Explanatory Hypotheses and Risk or Protective Factors of Gender and Sex Differences

In the etiology of psychosis, monocausal models have been replaced by multidisciplinary perspectives which integrate psychosocial interactions as well as neurobiological predispositions. In this way, biological vulnerabilities could make some individuals more susceptible to specific environmental factors and potentially leading to the development of the psychotic illness. Shah et al. [31] highlight also the influence of the social factors at an ecological level in the way that they can change the risk on a population basis or change environmental risk in a multifaceted and complex interplay between individual and ecological dimension. In this sense, and besides differences in biological variables, gender, understood as the cultural construct that society elaborates on anatomical sex, could also modulate in an ecological dimension or, at least, the predisposition to the psychotic illness either by decreasing the impact of individual risk factors or by reducing the possibility of exposure to individual social risks.

#### 29.4.1 Substance Abuse

In a worldwide sample, males are three times more likely to use recreational drugs such as cannabis than women [32]. Substance use disorders (SUD), postulated as one of the predisposing factors for psychosis, are a more frequent clinical condition among men than among women at the debut of the first psychotic episode [33, 34].

Different drugs, as alcohol, cannabis, amphetamines, cocaine, and psychedelics, have been linked to psychosis in adolescents [35, 36]. However, the relationship between cannabis and psychosis is the most extensively studied in the literature.

Cannabis is the most commonly abused illicit drug in the Western world and is significantly more often used by men than by women [37]. In young adults, based in a UK birth cohort, the prevalence of one per week cannabis use among 15–16 years old were 10.6% in boys and 8.1% in girls [38].

A new meta-analysis revealed that approximately 52.8% of UHR patients report a lifetime exposure to cannabis [39], which is a similar proportion to first-episode psychosis samples that reach up to 60–80% [37, 38]. These studies also indicate a current use of cannabis at entry care around 30% in both groups [39–41].

In young samples, cannabis is also associated with an earlier age of onset [40], and some research supports that the risk of experiencing psychotic symptoms with cannabis is greater at younger ages (less than 14 years) and therefore with a younger first contact with mental health services [42]. Available data [33] also suggest that substance use disorders, especially cannabis use disorders, are common in first-episode patients and appear linked to a poor response to antipsychotic medications and poor outcome, so the existence of cannabis use disorder seem to have a negative effect in the level of severity and outcome of the psychosis.

There are preliminary results on a brain imaging studies of a sex-dependent interaction between cannabis use and adolescent development [43, 44]. For example, female cannabis users were reported as having larger right amygdala volumes and more internalizing symptoms of anxiety and depression than female controls, whereas no such relationship was evident in males [43].

Recent studies also suggest that the use of cannabis may have a greater impact on females than males, and the authors theorize about the use of cannabis and other drugs that may reduce or abolish the protective effect of estrogens leading to a reduction in the age of onset in women [45]. Besides, women with substance abuse may also have a more detrimental course of illness than men with substance abuse [34].

#### 29.4.2 Childhood Trauma and Stress Factors

Exposure to childhood adverse experiences is strongly associated with increased risk of psychosis [46]. Several large population-based studies have found associations between various types of early trauma (such as sexual, physical, emotional abuse, and neglect) and psychotic symptoms in adolescence as well as full-blown psychotic disorders in adulthood [47, 48].

A recent paper found that male patients reported higher rates of physical or emotional neglect compared to female patients, whereas women showed significantly higher rates of emotional abuse than men [49]. They pointed out that these findings appear to contradict previous research showing higher rates of sexual and physical abuse in female patients [50], but they explained the difference of the results because of the non-comparable design between the two studies: whereas Fisher and colleges [50] looked at childhood trauma in male and female patients compared with samesex control subjects, Pruessner and colleagues [49] compared male and female patients directly.

Thus, it is still possible that a larger proportion of female patients compared to female controls have experienced childhood sexual abuse. The rate of sexual abuse in the study by Pruessner et al. [49] was 24.2% in women and 16.7% in men, which is clearly lower than the weighted average for the prevalence of sexual abuse reported in the review by Morgan and Fisher [47], which was 42% in females and 28% in male patients. In line with this discrepancy, the total trauma rate in this recent study is 54.3%, whereas the rate in other previous studies ranged from 91% [51] over 75% [52] to 73% [53] and 71% [54].

It is likely that these inconsistencies with previous studies are consequences of methodological differences, as previous studies have included mild forms of child-hood trauma in their ratings, whereas in the study by Pruessner et al., only moderate to severe ratings warranted a rating of childhood trauma.

Testing theories of the relationship between childhood traumatic experiences and atypical clinical presentation in FEP, Bendall et al. [55] found that those subjects with FEP and childhood sexual abuse (CSA) had more severe hallucinations and delusions than those with FEP and without CSA. The results are consistent with the posttraumatic intrusions account of hallucinations and delusions in those with CSA and psychosis. In addition, patients with history of abuse had a significantly earlier age at onset, regardless of their sex. However, women with childhood physical abuse seem to have an early onset of psychosis than men patients [56]. This is in line with some previously cited findings showing that women with history of physical or sexual abuse had more chance to become schizophrenia patients than those without, whereas this was not the case in men [50, 57].

Another type of childhood trauma as being a victim of bullying has also been associated with a wide range of mental health problems in adolescence [58] as well as subclinical psychotic symptoms [59, 60]. In samples of FEP, gender differences were also found for bullying; comparing to men, a larger proportion of women had been bullied [59].

According to this, it has been postulated the existence of a female cognitive predisposition to higher levels of negative affect upon the occurrence of negative life events. Different studies have also confirmed a greater women tendency to rumination in both adolescents [61] and adults [62]. A ruminative response style, defined by Nolen-Hoeksema and colleagues [62], as a response to negative life events characterized by excessive focus on negative emotions, increased the likelihood of developing psychopathological disorders. It is known that girls are more prone to develop internalizing difficulties, whereas boys tend to respond by exhibiting externalizing behavior or substance abuse [50].

Furthermore, internalizing problems have been found to mediate the association between bullying exposure and psychotic symptoms which may, therefore, put girls at greater risk of developing psychosis in specific stress situations [63].

#### 29.4.3 Cognitive and Behavior Factors

Previous studies have found worst cognitive performance in schizophrenic and psychotic syndrome patients compared with control groups for attention, working memory, verbal memory, and executive functions [64, 65].

Cognitive differences between females and males in adult-onset schizophrenia have been investigated; predominantly, boys with psychosis were found to have more overall cognitive impairment than girls [59, 60], but the results are still controversial [66]. Furthermore, specific brain development differences, as prefrontal cortex maturation, appear to be age-dependent with an early peak in girls with a better early results in neurocognitive domains [67].

In a recent study, Ayesa-Arriola et al. observed cognitive differences in FEP versus healthy subjects, which predict a worse premature adjustment due to factors of lack of employment, lower years of education, and lower socioeconomic level. Women with lower IQ, however, showed a basal function and a late adjustment better than men [68].

The last study of Ruiz-Veguilla et al. did not replicate these results in EOP patients but found that girls with EOP had a more severe cognitive deficit, specifically in working memory and auditory attention, than girls in the control group [66]. They also pointed out that the lack of coincidence in studies of cognitive domains between sexes in early-onset psychosis could be explained because females who develop psychosis during adolescence probably have a higher load of genetic or environmental risk factors despite to protective factors such as estrogens [66].

#### 29.4.4 Genetic Risk Factors

The hypothesis that there is sex-specific or sex-dependent genetic risk for schizophrenia is not conclusive but warrants further systematic investigation [16, 69]. 708 Á. Andreu et al.

Riecher-Rössler et al. [9] pointed out that recent evidence suggests the presence of some sex-dependent effects: considering the offspring of female patients, their sons seem to develop psychosis more often than their daughters, whereas the opposite has occurred with male patients, who seem to transfer more often the disorder to their daughters than to their sons [69, 70].

In addition, genome-wide association studies (GWAS) suggest sex-specific effects primarily among women with schizophrenic disorders, and recent molecular genetic studies point to a possible involvement of the X chromosome in the sex differences [69].

#### 29.4.5 Hormonal Factors

Some studies suggested that gonadal hormones, prolactin, and the hypothalamic-pituitary-gonadal axis might be responsible for some sex differences in schizophrenia and FEP [9, 28].

Many clinical, epidemiological, and fundamental research studies have shown that estradiol, the main component of estrogens, has protective effects in schizophrenic psychoses [28] and delay the age of onset of schizophrenia in women [9]. This is important in adolescents and early-onset psychosis because there is huge evidence that many women with psychosis have low estrogen levels, even in the prodromal and untreated phases of the disease [28, 29, 71]. They have also suggested that women who are "vulnerable" to the development of schizophrenia may have a generally lower level of endogenous estrogens than healthy women.

Finally, recent studies show that men and especially women with EOP have increased levels of prolactin, and in men, the antipsychotic-naive patient at early onset of the symptoms had lower testosterone levels than healthy controls [28]. Therefore, patients with first onset or EOP might also show hypothalamic-pituitary-gonadal dysfunction with hyperprolactinemia and suppressed gonadal function, like a low production of estrogens and testosterone. But for the moment, more research has to be done on this question [9].

#### 29.5 Conclusions

The findings presented throughout this chapter reveal sex and gender differences in adolescent-onset psychotic episodes that may suggest different pathways to the development of psychosis. Biological differences between men and women interacting with the predisposing factors that may, in turn, be influenced by social and cultural factors may explain differences in the etiopathogenesis and clinical expression of psychosis between males and females.

Most of the studies indicate that in the case of women, the prognosis of the illness, the social functioning, and the response to treatment is better. On the other hand, male gender tends to be linked to variables of worse outcome. Indeed,

social functioning and attenuated psychotic symptoms were seen to predict transition to psychosis in male at-risk patients, which was not true for female at-risk patients [72].

The etiology of psychosis is complex and requires explanatory models that include gene-by-environment interactions. In this sense, the male gender could lead to increased susceptibility to neurodevelopmental abnormalities as well as to a predisposition to substance abuse. The interaction of both factors could confer to the male gender to be more vulnerable to suffer more severe psychosis of neurodevelopmental origin, as schizophrenia spectrum disorders, and with a worse prognosis.

On the other hand, the stress and traumatic experiences as a risk factor for psychosis may have a greater weight in the female gender. Given this, we should consider the possible predominance of the female gender in psychotic disorders associated with trauma.

However, there is still controversy in several domains as DUP, premorbid adjustment, or cognitive differences. More studies are needed to clarify all these questions that might have an important implication toward implementing specific prevention strategies and individualized treatments based on sex and gender characteristics of the adolescents.

#### References

- Díaz-Caneja CM, Pina-Camacho L, Rodríguez-Quiroga A, Fraguas D, Parellada M, Arango C. Predictors of outcome in early-onset psychosis: a systematic review. Npj Schizophr. 2015;1:14005.
- 2. Häfner H, Maurer K, Löffler W, Fätkenheuer B, Heiden WAD, Riecher-Rössler A, et al. The epidemiology of early schizophrenia: influence of age and gender on onset and early course. Br J Psychiatry. 1994;164(S23):29–38.
- 3. Schimmelmann BG, Conus P, Cotton S, McGorry PD, Lambert M. Pre-treatment, baseline, and outcome differences between early-onset and adult-onset psychosis in an epidemiological cohort of 636 first-episode patients. Schizophr Res. 2007;95(1–3):1–8.
- Stevens JR, Prince JB, Prager LM, Stern TA. Psychotic disorders in children and adolescents: a primer on contemporary evaluation and management. Prim Care Companion CNS Disord. 2014;16(2):13f01514.
- Cotton SM, Lambert M, Schimmelmann BG, Foley DL, Morley KI, McGorry PD, et al. Gender differences in premorbid, entry, treatment, and outcome characteristics in a treated epidemiological sample of 661 patients with first episode psychosis. Schizophr Res. 2009;114(1-3):17-24.
- Chang WC, Tang JY, Hui CL, Lam MM, Chan SK, Wong GH, et al. Prediction of remission and recovery in young people presenting with first-episode psychosis in Hong Kong: a 3-year follow-up study. Aust N Z J Psychiatry. 2012;46(2):100–8.
- Cocchi A, Lora A, Meneghelli A, La Greca E, Pisano A, Cascio MT, et al. Sex differences in first-episode psychosis and in people at ultra-high risk. Psychiatry Res. 2014;215(2):314–22.
- 8. Häfner H, Maurer K, an der Heiden W. ABC Schizophrenia study: an overview of results since 1996. Soc Psychiatry Psychiatr Epidemiol. 2013;48(7):1021–31.
- Riecher-Rössler A, Butler S, Kulkarni J. Sex and gender differences in schizophrenic psychoses—a critical review. Arch Womens Ment Health [Internet]. 16 May 2018 [cited 2018 Aug 27]. Available at: http://link.springer.com/10.1007/s00737-018-0847-9.

- 10. Riecher-Rössler A, Löffler W, Munk-Jørgensen P. What do we really know about late-onset schizophrenia? Eur Arch Psychiatry Clin Neurosci. 1997;247(4):195–208.
- 11. Lewine RR, et al. Effect of diagnostic criteria on the ratio of male to female schizophrenic patients. Am J Psychiatry. 1984;141(1):84–7.
- Filatova S, Marttila R, Koivumaa-Honkanen H, Nordström T, Veijola J, Mäki P, et al. A comparison of the cumulative incidence and early risk factors for psychotic disorder in young adults in the Northern Finland Birth Cohorts 1966 and 1986. Epidemiol Psychiatr Sci. 2017;26(03):314–24.
- 13. Aleman A, Kahn RS, Selten J. Sex differences in the risk of schizophrenia: evidence from meta-analysis. Arch Gen Psychiatry. 2003;60(6):565–71.
- Barajas A, Ochoa S, Obiols JE, Lalucat-Jo L. Gender differences in individuals at high-risk of psychosis: a comprehensive literature review. ScientificWorldJournal. 2015;2015:430735.
- Hayashi N, Igarashi Y, Yamashina M, Suda K. Is there a gender difference in a factorial structure of the positive and negative syndrome scale? A test by structural equation modeling. Psychopathology. 2002;35(1):28–35.
- Ochoa S, Usall J, Cobo J, Labad X, Kulkarni J. Gender differences in schizophrenia and firstepisode psychosis: a comprehensive literature review. Schizophr Res Treat [Internet]. 2012 [cited 2018 Jul 20]. Available at: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3420456/.
- 17. Kotlicka-Antczak M, Pawełczyk T, Podgórski M, Żurner N, Karbownik MS, Pawełczyk A. Polish individuals with an at-risk mental state: demographic and clinical characteristics. Early Interv Psychiatry. 2016;12(3):391–9.
- Heitz U, Studerus E, Menghini-Müller S, Papmeyer M, Egloff L, Ittig S, et al. Gender differences in first self-perceived signs and symptoms in patients with an at-risk mental state and first-episode psychosis. Early Interv Psychiatry [Internet]. 13 Dec 2017 [cited 2018 Sept 11]. Available at: https://doi.org/10.1111/eip.12528
- Thorup A, Petersen L, Jeppesen P, Ohlenschlaeger J, Christensen T, Krarup G, et al. Gender differences in young adults with first-episode schizophrenia spectrum disorders at baseline in the Danish OPUS study. J Nerv Ment Dis. 2007;195(5):396–405.
- 20. Moukas G, Gourzis P, Beratis IN, Beratis S. Sex differences in prepsychotic "prodromal" symptomatology and its association with Positive and Negative Syndrome Scale active phase psychopathology in male and female patients. Compr Psychiatry. 2010;51(5):546–51.
- 21. Bertani M, Lasalvia A, Bonetto C, Tosato S, Cristofalo D, Bissoli S, et al. The influence of gender on clinical and social characteristics of patients at psychosis onset: a report from the Psychosis Incident Cohort Outcome Study (PICOS). Psychol Med. 2012;42(4):769–80.
- 22. González-Rodríguez A, Studerus E, Spitz A, Bugra H, Aston J, Borgwardt S, et al. Gender differences in the psychopathology of emerging psychosis. Isr J Psychiatry Relat Sci. 2014;51(2):85–92.
- Szymanski S, Lieberman JA, Alvir JM, Mayerhoff D, Loebel A, Geisler S, et al. Gender differences in onset of illness, treatment response, course, and biologic indexes in first-episode schizophrenic patients. Am J Psychiatry. 1995;152(5):698–703.
- 24. Leung A, Chue P. Sex differences in schizophrenia, a review of the literature. Acta Psychiatr Scand Suppl. 2000;401:3–38.
- 25. Larsen TK, McGlashan TH, Johannessen JO, Vibe-Hansen L. First-episode schizophrenia: II. Premorbid patterns by gender. Schizophr Bull. 1996;22(2):257–69.
- Chang WC, Tang JYM, Hui CLM, Wong GHY, Chan SKW, Lee EHM, et al. The relationship
  of early premorbid adjustment with negative symptoms and cognitive functions in first-episode
  schizophrenia: a prospective three-year follow-up study. Psychiatry Res. 2013;209(3):353–60.
- Hassan GAM, Taha GRA. Long term functioning in early onset psychosis: two years prospective follow-up study. Behav Brain Funct BBF. 2011;7:28.
- 28. Riecher-Rössler A. Oestrogens, prolactin, hypothalamic-pituitary-gonadal axis, and schizo-phrenic psychoses. Lancet Psychiatry. 2017;4(1):63–72.
- 29. Kulkarni J, Gavrilidis E, Worsley R, Van Rheenen T, Hayes E. The role of estrogen in the treatment of men with schizophrenia. Int J Endocrinol Metab. 2013;11(3):129–36.

- Riecher-Rössler A, McGorry PD. Early detection and intervention in psychosis. In: Riecher-Rössler A, McGorry PD, editors. Key issues in mental health [Internet]. Basel: S. Karger AG; 2016. p. 179–89.. [cited 2018 Sept 11]. Available at: https://www.karger.com/Article/FullText/440924.
- 31. Shah J, Mizrahi R, McKenzie K. The four dimensions: a model for the social aetiology of psychosis. Br J Psychiatry J Ment Sci. 2011;199(1):11–4.
- 32. United Nations, Office on Drugs and Crime. World drug report 2016. 2016.
- 33. Green AI, Tohen MF, Hamer RM, Strakowski SM, Lieberman JA, Glick I, et al. First episode schizophrenia-related psychosis and substance use disorders: acute response to olanzapine and haloperidol. Schizophr Res. 2004;66(2–3):125–35.
- 34. Lange EH, Nesvåg R, Ringen PA, Hartberg CB, Haukvik UK, Andreassen OA, et al. One year follow-up of alcohol and illicit substance use in first-episode psychosis: does gender matter? Compr Psychiatry. 2014;55(2):274–82.
- 35. Kuzenko N, Sareen J, Beesdo-Baum K, Perkonigg A, Höfler M, Simm J, et al. Associations between use of cocaine, amphetamines, or psychedelics and psychotic symptoms in a community sample. Acta Psychiatr Scand. 2011;123(6):466–74.
- McClellan J, Stock S. Practice parameter for the assessment and treatment of children and adolescents with schizophrenia. J Am Acad Child Adolesc Psychiatry. 2013;52(9):976–90.
- 37. Khan SS, Secades-Villa R, Okuda M, Wang S, Pérez-Fuentes G, Kerridge BT, et al. Gender differences in cannabis use disorders: results from the National Epidemiologic Survey of Alcohol and Related Conditions. Drug Alcohol Depend. 2013;130(1):101–8.
- MacArthur GJ, Smith MC, Melotti R, Heron J, Macleod J, Hickman M, et al. Patterns of alcohol use and multiple risk behaviour by gender during early and late adolescence: the ALSPAC cohort. J Public Health. 2012;34(Suppl 1):i20–30.
- 39. Carney R, Cotter J, Firth J, Bradshaw T, Yung AR. Cannabis use and symptom severity in individuals at ultra high risk for psychosis: a meta-analysis. Acta Psychiatr Scand. 2017;136(1):5–15.
- 40. Crocker CE, Tibbo PG. The interaction of gender and cannabis in early phase psychosis. Schizophr Res. 2018;194:18–25.
- 41. Myles H, Myles N, Large M. Cannabis use in first episode psychosis: Meta-analysis of prevalence, and the time course of initiation and continued use. Aust N Z J Psychiatry. 2016;50(3):208–19.
- 42. Stefanis NC, Dragovic M, Power BD, Jablensky A, Castle D, Morgan VA. Age at initiation of cannabis use predicts age at onset of psychosis: the 7- to 8-year trend. Schizophr Bull. 2013;39(2):251–4.
- 43. McQueeny T, Padula CB, Price J, Medina KL, Logan P, Tapert SF. Gender effects on amygdala morphometry in adolescent marijuana users. Behav Brain Res. 2011;224(1):128–34.
- 44. James A, James C, Thwaites T. The brain effects of cannabis in healthy adolescents and in adolescents with schizophrenia: a systematic review. Psychiatry Res Neuroimaging. 2013;214(3):181–9.
- 45. Donoghue K, Doody GA, Murray RM, Jones PB, Morgan C, Dazzan P, et al. Cannabis use, gender and age of onset of schizophrenia: data from the ÆSOP study. Psychiatry Res. 2014;215(3):528–32.
- 46. Varese F, Smeets F, Drukker M, Lieverse R, Lataster T, Viechtbauer W, et al. Childhood adversities increase the risk of psychosis: a meta-analysis of patient-control, prospective- and cross-sectional cohort studies. Schizophr Bull. 2012;38(4):661–71.
- 47. Morgan C, Fisher H. Environment and schizophrenia: environmental factors in schizophrenia: childhood trauma—a critical review. Schizophr Bull. 2007;33(1):3–10.
- 48. Read J, van Os J, Morrison AP, Ross CA. Childhood trauma, psychosis and schizophrenia: a literature review with theoretical and clinical implications. Acta Psychiatr Scand. 2005;112(5):330–50.
- 49. Pruessner M, King S, Vracotas N, Abadi S, Iyer S, Malla AK, et al. Gender differences in childhood trauma in first episode psychosis: association with symptom severity over two years.

- Schizophr Res [Internet]. June 2018 [cited 2018 Aug 22]. Available at: https://linkinghub.elsevier.com/retrieve/pii/S0920996418303815.
- 50. Fisher H, Morgan C, Dazzan P, Craig TK, Morgan K, Hutchinson G, et al. Gender differences in the association between childhood abuse and psychosis. Br J Psychiatry. 2009;194(4):319–25.
- 51. Stumbo SP, Yarborough BJH, Paulson RI, Green CA. The impact of adverse child and adult experiences on recovery from serious mental illness. Psychiatr Rehabil J. 2015;38(4):320–7.
- 52. Duhig M, Patterson S, Connell M, Foley S, Capra C, Dark F, et al. The prevalence and correlates of childhood trauma in patients with early psychosis. Aust N Z J Psychiatry. 2015;49(7):651–9.
- 53. Schalinski I, Fischer Y, Rockstroh B. Impact of childhood adversities on the short-term course of illness in psychotic spectrum disorders. Psychiatry Res. 2015;228(3):633–40.
- 54. Trotta A, Murray RM, David AS, Kolliakou A, O'Connor J, Di Forti M, et al. Impact of different childhood adversities on 1-year outcomes of psychotic disorder in the genetics and psychosis study. Schizophr Bull. 2016;42(2):464–75.
- 55. Bendall S, Hulbert CA, Alvarez-Jimenez M, Allott K, McGorry PD, Jackson HJ. Testing a model of the relationship between childhood sexual abuse and psychosis in a first-episode psychosis group: the role of hallucinations and delusions, posttraumatic intrusions, and selective attention. J Nerv Ment Dis. 2013;201(11):941–7.
- Kocsis-Bogár K, Mészáros V, Perczel-Forintos D. Gender differences in the relationship of childhood trauma and the course of illness in schizophrenia. Compr Psychiatry. 2018;82:84–8.
- 57. Gayer-Anderson C, Fisher HL, Fearon P, Hutchinson G, Morgan K, Dazzan P, et al. Gender differences in the association between childhood physical and sexual abuse, social support and psychosis. Soc Psychiatry Psychiatr Epidemiol. 2015;50(10):1489–500.
- 58. Arseneault L, Bowes L, Shakoor S. Bullying victimization in youths and mental health problems: «much ado about nothing»? Psychol Med. 2010;40(5):717–29.
- 59. Kelleher I, Keeley H, Corcoran P, Ramsay H, Wasserman C, Carli V, et al. Childhood trauma and psychosis in a prospective cohort study: cause, effect, and directionality. Am J Psychiatry. 2013;170(7):734–41.
- Mackie CJ, O'Leary-Barrett M, Al-Khudhairy N, Castellanos-Ryan N, Struve M, Topper L, et al. Adolescent bullying, cannabis use and emerging psychotic experiences: a longitudinal general population study. Psychol Med. 2013;43(5):1033

  –44.
- 61. Broderick PC. Early adolescent gender differences in the use of ruminative and distracting coping strategies. J Early Adolesc. 1998;18(2):173–91.
- 62. Nolen-Hoeksema S, Larson J, Grayson C. Explaining the gender difference in depressive symptoms. J Pers Soc Psychol. 1999;77(5):1061–72.
- 63. Fisher HL, Schreier A, Zammit S, Maughan B, Munafò MR, Lewis G, et al. Pathways between childhood victimization and psychosis-like symptoms in the ALSPAC birth cohort. Schizophr Bull. 2013;39(5):1045–55.
- 64. Jockers-Scherübl MC, Wolf T, Radzei N, Schlattmann P, Rentzsch J, Gómez-Carrillo de Castro A, et al. Cannabis induces different cognitive changes in schizophrenic patients and in healthy controls. Prog Neuropsychopharmacol Biol Psychiatry. 2007;31(5):1054–63.
- 65. de la Serna E, Mayoral M, Baeza I, Arango C, Andrés P, Bombin I, et al. Cognitive functioning in children and adolescents in their first episode of psychosis: differences between previous cannabis users and nonusers. J Nerv Ment Dis. 2010;198(2):159–62.
- 66. Ruiz-Veguilla M, Moreno-Granados J, Salcedo-Marin MD, Barrigon ML, Blanco-Morales MJ, Igunza E, et al. Sex-specific cognitive abnormalities in early-onset psychosis. Rev Bras Psiquiatr. 2017;39(1):28–35.
- 67. Marsh R, Gerber AJ, Peterson BS. Neuroimaging studies of normal brain development and their relevance for understanding childhood neuropsychiatric disorders. J Am Acad Child Adolesc Psychiatry. 2008;47(11):1233–51.
- 68. Ayesa-Arriola R, Setién-Suero E, Neergaard KD, Belzunces ÀA, Contreras F, van Haren NEM, et al. Premorbid IQ subgroups in first episode non affective psychosis patients: long-term sex differences in function and neurocognition. Schizophr Res. 2018;197:370–7.

- 69. Goldstein JM, Cherkerzian S, Tsuang MT, Petryshen TL. Sex differences in the genetic risk for schizophrenia: history of the evidence for sex-specific and sex-dependent effects. Am J Med Genet B Neuropsychiatr Genet. 2013;162(7):698–710.
- 70. Goldstein JM, Cherkerzian S, Seidman LJ, Petryshen TL, Fitzmaurice G, Tsuang MT, et al. Sex-specific rates of transmission of psychosis in the New England high-risk family study. Schizophr Res. 2011;128(1):150–5.
- Neill JC, Kulkarni J. Biological basis of sex differences in psychopharmacology. Berlin: Springer; 2011.
- 72. Walder DJ, Holtzman CW, Addington J, Cadenhead K, Tsuang M, Cornblatt B, et al. Sexual dimorphisms and prediction of conversion in the NAPLS psychosis prodrome. Schizophr Res. 2013;144(1):43–50.



## **Schizophrenia and Gender**

30

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#### Abstract

The existence of significant differences in schizophrenia is one of the issues discussed extensively. There are differences in the prognosis, marked by the age of onset, treatment adherence, or drug use. Another aspect is the clinical pattern (particularly cognitive symptoms), the response to treatment, and side effects. These differences can be explained on the basis of biological and psychosocial hypotheses. Schizophrenia is a very heterogeneous disorder, if we consider its basic clinical characteristics. That heterogeneity is showed by the vast variability in the onset and clinical presentation, the course of the illness, and response to both pharmacological and psychosocial treatment. That heterogeneity may be due to gender-related features, or at least gender variables may help to understand those differences. That's why gender differences in schizophrenia have been widely studied in last decades. Unfortunately, research has not been conclusive for many of those differences.

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#### 30.1 Introduction

Sex and gender differences in schizophrenia provide a compelling basis for both psychiatry research and clinical practice. Differences might be a consequence from a mixed interplay between biological (mainly hormonal) and psychosocial factors.

Dissimilarities have been described in the incidence and prevalence, age at onset, "premorbid adjustment," symptomatology and course of schizophrenic psychoses, cognitive functioning, and brain morphology [1].

The existence of gender differences in the incidence of schizophrenia has been a controversial issue. Traditionally, it has been thought that the incidence and prevalence of the disorders is the same for both men and women. But more recently studies have shown that when using more restrictive criteria for the diagnosis, fewer women fulfill them. For example, if using the Feighner restrictive criteria, the femalemale ratio is 0.41:1, and if using ICD criteria, it is 0.92:1 [2]. A current meta-analysis studying an incidence population found a higher incidence in men (ratio 1.42) [3]. However, studies usually excluded a second peak of schizophrenia onset in women aged 45 years and older. If studies take a higher age limit, the relative risk arises to be similar for both sexes [1]. Respecting prevalence, studies in general population do not find gender differences. Maybe this is due to the fact that men have no adherence with pharmacological treatment and they have higher suicide rate. Another explanation may be the study designs, which are focused on epidemiological information for prevalence or in clinical data for studying the incidence [2].

One of the most relevant data in the research of gender differences in schizophrenia refers to the age of onset. It is higher in women, regardless of culture, onset diagnostic defining criteria, or sex correlation in the population.

It is also noteworthy that women have better premorbid adjustment with a higher educational level and social functioning, with lower behavioral disorders, aggression, and neurocognitive deficits. These gender differences are not seen in first-episode patients, but they are very obvious in chronic patients [4], which leads to hypothesis of a different course of the illness between men and women.

The clinical features of the disease are also different in women, who have a greater affective component and more positive psychotic symptoms. This explains why the most common schizophrenia subtype in women is the paranoid one [4]. They also experiment more schizoaffective disorders and brief psychoses.

The prognosis of the disorder appears to be better for women, who have fewer readmissions, fewer drug abuse, and greater functionality in several areas such as work, social, and occupational status [2–4]. So we can conclude that females have a better quality of life.

Since gender bias in clinical trials with a disproportion of males in the sample, the response to treatment is still a poorly studied area. However, women have greater adherence to treatment and better response to psychosocial treatment. Based on the results of the CATIE study, women have a higher risk of metabolic syndrome, increased cardiac risk, and increased diabetes and obesity in the context of use of antipsychotics [5].

Another differential pattern is the cognitive deficits observed with disease progression. Women tend to have better results in attention, immediate memory, and delayed memory. On the other hand, men have more cognitive impairment but better results in visuospatial functions [4]. According to the results of some authors [6], there are no differences in executive functioning.

Trying to explain these differences and the protective role attributed to gender, various theories have been proposed: biological and psychosocial. We will try to summarize most of the biological ones, especially about the protective role of estrogen on the dopaminergic system. Psychosocial theories are still pending to be generalized and replicated because these factors may be subjected to contextual changes (increased demand and expectations in adolescents versus adults). Other hypotheses to be confirmed and replicated are the ones involving specific neural circuits.

#### 30.2 Clinical Differences [7]

#### 30.2.1 Age of Onset

Several studies indicate that men tend to develop the disorder at the age of 14–24, an average of 3 years before women, whose mean age of onset is 25–35. However, women appear to have two peaks in the age of the illness onset: the first is after menarche, and the second is between 45 and 54 menopausal-related years [8].

Nevertheless, the first group (after menarche) distribution seems to be similar between genders [2]. There is no sex difference in age of onset in patients that have a family history of psychosis [1, 9].

The difference in gender at the age of onset disappears in the presence of a family history of schizophrenia [10–13].

In addition, as found in a recent review by Esterberg et al. [9], the second highest risk peak in women around menopause has been challenged by a recent recalculation of schizophrenia incidence rates in 43 studies (a total of 133,693 incident cases reported between 1950 and 2009). According to this new calculation, men had a peak incidence between the ages of 20 and 29, while women had two peaks, first between 20 and 29 and the second between 30 and 39, not as previously reported from 40 to 49 years. Additionally, men showed greater risk until the age of 39, while women showed greater risks between the ages of 50 and 70 [10, 14].

## **30.2.2 Obstetric History**

Traditionally, perinatal complications have been associated to an earlier onset and to a worse course of the disease. The data obtained in the study of gender differences for obstetric history complications in schizophrenia is inconclusive [2]; some researchers report obstetric complication history to be more common among men [15] and others in women [16] and others do not find gender differences [17].

We find the same circumstance when analyzing influenza virus exposure in the second trimester of pregnancy: the data is not conclusive [18].

#### 30.2.3 Family Risk

One of the first analyzed gender differences in schizophrenia was the family risk [19], showing a higher familial risk for schizophrenia, schizophreniform disorder, and schizoaffective disorder in women relatives than in relatives of men. These differences were attenuated when the spectrum of psychosis was widened. Pulver group found that relatives of men with the disease who have an age of onset under 17 have an important higher risk of schizophrenia. On the other hand, they also found an association between age at onset and familial risk in women [20].

Recent evidence suggests the presence of some sex-dependent risks and even sex-specific risks. Considering the descendents of mothers with psychosis, their sons seem to develop psychosis more often than their daughters; but fathers more often seem to transfer the disorder to their daughters than to their sons [21, 22].

Other research groups have not found an association between gender, familial risk, and age at onset [23].

#### 30.2.4 Substance Use

The prevalence of substance abuse is higher in people with schizophrenia and firstepisode psychosis than in general population. Overall, men have higher rates of substance abuse both in general population and in mental illness population.

Another factor related with gender differences is cannabis abuse. The use of cannabis is related both with male sex and with earlier age at onset [1, 24]. So it has been proposed that some of the differences between men and women with respect to age at onset are mediated by cannabis use [25]. Cannabis is associated also with a more severe course of illness, a greater severity of symptoms, stronger impairment of global functioning, and a higher risk of relapse [1, 24].

In schizophrenic population, rates indicated that men consume more cannabis than women [26–28]. Moreover, Rodríguez-Jiménez et al. [28] found that men have higher comorbidity of cocaine, hallucinogen, and cannabis use than women. In the case of alcohol abuse, the data showed that males presented higher levels of consumption than women [29].

In addition, Arendt et al. [30] demonstrate that the risk of developing psychosis is higher in men who consume cannabis than in women at the same circumstance. The study assessed a total of 535 people with a cannabis-induced psychosis over 3 years, and the rates for developing schizophrenia were 47.6% in males versus 29.8% in women.

Men presented higher prevalence of second diagnosis of substance abuse [31] and higher levels of comorbidity than women. Moreover, it seems that substance abuse could be a greater risk factor for developing psychosis in males than in women [30].

Women have also more difficulties in quitting tobacco use than men, when they use tobacco and cannabis together [32]. However, women who have substance abuse may have a more adverse course of illness than men with substance abuse [33].

#### 30.2.4.1 Premorbid Functioning

The premorbid functioning is associated with the prognosis of the schizophrenic illness, so finding gender differences in this particular item can make a big difference on the evolution of the illness. Most studies that have analyzed the role of the gender variable in premorbid adjustment found less severe deficits in women than in men [34, 35].

Women have a better global outcome than men [36] because they are better educated and have held jobs more often and functionality is better than men [4, 37, 38]. It seems that, with a later onset of the disease, women are more often married than men, with a better social adjustment and support at baseline and in lifetime [2, 4]. Furthermore, men tend to have more negative symptoms, with poorer cognitive and social functioning [31].

#### 30.2.4.2 Cognitive Functioning

Healthy individuals have also different results in neurocognitive functioning. It is known to indicate distinct sex and gender differences in these patients. Healthy women for instance tend to perform better than men in tasks measuring verbal abilities, while men perform better in tests of visuospatial skills [1, 39]. In schizophrenia, cognitive deficits are considered by many psychiatrists as a prominent symptom that requires attention, adequate treatment, and rehabilitation. There are various factors that could affect neuropsychological functioning of schizophrenic patients, within which were included medication, toxic abuse, and gender.

This is also a controversial domain in gender differences in schizophrenia. Most of the studies agree about a worst cognitive functioning in men. However, there is some controversy about what neuropsychological areas are more affected in men [40].

It seems that women perform cognitively better for attention, immediate and delayed memory, verbal abilities, and executive function [2, 4]. On the other hand, men have better visuospatial functioning, as it happens with healthy controls [41]. These differences are more significant in chronic schizophrenia than in first episodes of psychosis [4].

A recent study by Abu-Akel et al. [42] showed that women are better mentalizers than men, being these differences regardless to intelligence level or to clinical or demographical variables. Their finding was that, apart from their better cognitive functioning, schizophrenic women also have a better social cognition. They can employ both cognitive and affective mentalizing, particularly to identify emotions of other people. That means that women can appreciate other people's mental state better than male patients.

As the illness develops, men present more and more severe negative symptoms than women [2, 4, 31, 43], being the incidence of negative schizophrenia in premenopausal women smaller than in men at the same age.

An inverse relationship between anergy and 17B estradiol levels has been established [44] which reinforces the minor presence of negative symptoms in

premenopausal women or in treatment with hormone replacement therapy [45, 46]. This links the hormonal condition with the absence of neuronal atrophy and neuronal lost frequent in negative symptoms [47].

Furthermore, women with schizophrenia have serum estradiol 17B lower than controls. This means that serum 17B estradiol levels are correlated with the severity of symptoms [44].

About cognitive symptoms, recent research has also indicated that estrogen has an essential role in enhancing executive functions in action cortex prefrontal level [48].

A more recent review, conducted by Krysta et al. [40], and analysis of several studies show that cognitive differences found between tests applied to men and women with schizophrenia postulated poorer performance on neuropsychological tests in male patients. Like others who had similar findings, in the latter study, the male schizophrenic patients showed more deficits in cognitive functioning when compared with female patients in domains such as attention, verbal memory, and executive functions. Moreover, differences in cognitive functioning of schizophrenic patients sexspecific were not found in this review or differences were not clinically significant. Hence, the need for more research on the issue of gender differences in cognitive functioning in patients with schizophrenia arises [40].

#### 30.2.4.3 Social Functioning

- Studies found that women perform better in social functioning; they are better adapted and have fewer disabilities than men. These differences are found both during the prodromal phase as in the psychotic phase of schizophrenia [4]. Available evidence suggests that women outperform men in social functioning for the first episode but also during the later course of the disease [2]. Women have higher scores at GAF scale during a 5-year follow-up [31].
- One of the most robust indicators of social functioning is marital status. The single or never-married and childless schizophrenic men percentage is much bigger than women's percent [2, 4, 31]. However, there is no significant difference in marriage and having children in first-episode patients. This means that as the disease goes on, more women get married and became parent than men [31].
- Furthermore, referring to developing psychotic symptomatology, men seem to be more vulnerable to stressful life events than women [49]. So it is likely that women show a higher resilience than men to manage stress [2].
- About schizophrenic patient's social needs, Ochoa et al. found that men presented more basic (food, daily activities) and functional needs (education, money, personal care), whereas women had more service needs (information about illness, benefits, transport) [50].

#### 30.3 Course of Illness

The further course of schizophrenic psychoses—after onset of the first episode—is heterogeneous [2]. Moreover, the course of schizophrenia shows different patterns in males and females. We have already explained how the onset of the illness is earlier in men, and this links with a worse cognitive prognosis [51].

Early in the 1990s, in an 8-year follow-up [52], they exposed that women had a better course of hospital treatment, with shorter length of hospital stay, and survived longer in the community after their first hospital admission. Women seem to have also a better illness insight [50].

Later, these results have been confirmed. Being men predicts for higher risk of institutionalization [4], and males have higher relapse rates and spent more time until recovery [53].

Men have a worse prognosis as their clinical parameters deteriorate. Men with schizophrenia had more negative and cognitive symptoms, less affective symptoms, or specific psychotic symptoms (e.g., paranoia occurs more often in women) but also more substance abuse in comorbidity. And it is not only about clinical features, but their social network is also weaker; they tend to live alone and have less education and less access to work, and they also have problems for asking for help. This relates to the fact that more schizophrenic men die than women, with a suicide rate seven times higher in men [32].

Most studies conclude that both, clinical variables (number of episodes, length of stay, relapse, symptoms during follow-up) and social variables (global adaptation, occupational status), have better results in women than men. The later age of onset in women contributes to a better overall social course, accordingly, a better social integration to start with [2].

However, other studies of long-term monitoring (over 10 years) found no significant differences [54, 55].

We have widely described how men have more and worse negative symptoms, especially as the disease develops.

About psychotic symptoms, women score higher results on positive [26] and general psychopathology scales [4]. So if women experience more hallucinations, delusions [4], illogical thinking, inappropriate affect, and bizarre behavior [2], it is understandable why they are more often diagnosed in the paranoid subtype of schizophrenia. Women also tend to experiment more affective symptoms [4].

Men, on the other hand, experience more negative symptoms, such as associability, anhedonia, or affective flattening, so they are more diagnosed in residual subtype [2, 4].

## 30.4 Neuroimaging

Normal development of the brain is known to differ in both sexes. This is mainly moderated by genes and by regulatory influences of sex steroids and leads to structural sexual dimorphism of the healthy brain [56] including sex differences in the brain connectivity [57]. The normal sexual dimorphism of the healthy brain seems to be disturbed in schizophrenic psychoses [58].

This is shown in the cortex but also in the volume of the amygdala, hippocampus, hypothalamus, orbitofrontal and anterior cingulate, and insular cortex and also in the gray matter volume asymmetry, the gyrification index, and cortical folding [1].

Studies conducted to determine gender differences are structural and functional variables and controversial.

Several studies based on NMR (nuclear magnetic resonance) imaging, suggest that ventricular enlargement found in patients with schizophrenia is more prevalent in men [54, 59] although other results have been published less abundant that said the increase occurs in female patients comparing with control women, no significant differences by studying men with schizophrenia compared to controls [60].

Another common finding is the presence of greater number of structural abnormalities in male patients [59–61], focusing on the region of the corpus callosum [62, 63]. The differences in the temporal lobe disorders have also been tried to analyze, but the results have been mixed.

Although there is a relative abundance of evidence of brain abnormalities in schizophrenia, it remains unclear to what extent these changes, such as brain volume, are presented before antipsychotic treatment, an important consideration in the current debate about what structural effects antipsychotics can cause in the brain of schizophrenic patients. In some meta-analyses that have combined principles of CT and MRI [63], intracranial volume is an important variable, since it is suggested that reduction in the volume is one of the root causes of brain abnormalities in schizophrenia.

In a meta-analysis by Haijma et al. [64], where data are collected on brain volume obtained in 317 MRI studies in schizophrenia from September 1, 1998 until January 1, 2012, data are collected from 18,000 patients and controls. This meta-analysis included 33 studies with 771 patients treated with antipsychotics and 939 controls and can assess changes in brain volume present before antipsychotic treatment is initiated. Besides the use of antipsychotics or not was addressed to what extent the volumes were affected by the disease duration and sex, among others. In this study, we believe that loss of brain volume in schizophrenia is related to a combination of decreased intracranial volume reflecting early neurodevelopmental processes, together with the effect of the progression of the disease. As for his conclusions regarding sex and intracranial volume reduction, associated reductions were found in male.

In a pair of studies in which pituitary volume was assessed, one in first episode of schizophrenia [65], it was identified a significant effect of sex in pituitary volume in both the initial point as later tracking. It was found that the volume was higher in women, with data consistent with findings of previous studies. Although still unknown, functional significance of the increased pituitary volume in women is believed to have implications for sex differences in psychiatric disorders and to be implicated in HPA axis dysregulation. Other study [66] valued equally pituitary volume in schizophrenia as well as the ability to respond to stress. All study participants met criteria for age (18–55 years), IQ over 75, and normal brain MRI assessed by clinical neuroradiologist, with no history of seizures, head trauma with loss of consciousness, neurological disorder, and any antecedent or addiction. The results showed a main effect of gender (p = 0.001) indicating an increased pituitary volume in women than men independent of the analyzed group.

The regional neuropathology and association with specific symptoms of schizophrenia appear to be dependent on gender. So, Cowell et al. [67] found that in women greater frontal volume was associated with a more severe disorganization and suspicion, while in males lower volume was associated with disorganization (but no correlation with suspicion). Malla et al. [68] published a study that found that diffuse cerebral atrophy was associated with positive psychotic symptoms in women but not in men.

Sex differences in brain abnormalities in schizophrenia are known to start at the time of the early sex differentiation of the brain. Other hypothesis suggest that male brains are more vulnerable to pre- and perinatal complexity due to slower cerebral maturation or that sex differences occur because of the enormous synaptic pruning during adolescence, especially in men [69].

## 30.5 Estrogens and the Cognitive Symptoms of Schizophrenia: Possible Neuroprotective Mechanism

There are considerable gender differences in schizophrenia, some of which have been well documented for over 100 years. The most remarkable difference between men and women is the age of onset. Women have an average age of onset of 1–5 years later than men [70]. Regarding cognition according to gender in schizophrenia, women perform better in episodic verbal memory, processing speed, and prepulse inhibition [71]. Other differences found in the incidence of the disease according to women compared to men are 11.3:16.2 per 100,000 [72, 73].

Negative symptoms are less severe in women than in men, and there are no differences in positive symptoms [74–77]. In the course of the disease, the symptoms in women get worse after the menopause even achieving more functional results. While men maintain the severity of the symptoms stable over the time, they also have more visits to the hospital [78, 79].

Finally, women with schizophrenia do not show differences in brain morphology regarding to health controls, while male patients have a decreased volume in the parietal lobe and in the inferior temporal region, in addition to an increase in the ventricular volume [80–82].

## 30.5.1 Effects of Estrogens and Estrogen as a Treatment

It is common to refer to affective disorders when looking for gender differences in mental illness, leaving schizophrenia aside. However, when talking about schizophrenia, there are interesting differences that lead us to consider the estrogens as protective elements or even as coadjuvants in its treatment.

What are the effects of estrogens that can make a difference in the clinical expression of schizophrenia in women? These can be summarized in the following points:

 Neural organization during neurodevelopment: these effects take place preferably before brain maturation. The sexual brain differentiation extends from the

prenatal period to puberty. Estrogens facilitate that women mature faster than men (in the brains of these found that neural connections, axonal and lateralization of brain functions are later). This can cause male brains to be more vulnerable to damage pre-/perinatal associated with structural alterations in schizophrenia and with negative symptoms and early onset [83].

- Related with neuronal growth and synapse formation: neurons have Wernicke's
  region in the case of women and longer dendrites than males [84], without forgetting that there are gender differences in areas such as suprachiasmatic and
  paraventricular nuclei [85, 86].
- Modulation of neurotransmitters: 17B estradiol decreases the sensitivity of D2 receptors in neonatal rats [87], modifies dopaminergic mechanism-dependent behavior and the total mRNA and D2 receptor cDNA [87], and also increases the maximum expression of 5HT2A receptor binding [88]. There are other data suggesting the effect of estrogen on serotonergic and glutamatergic systems [89].
- Interaction with neural growth factors and other neurotrophins: mainly with increased BDNF expression. Another direct protective factor derived by estrogen exposure is increasing intracellular cAMP CREB phosphorylation (factor transcription) [89]. Furthermore, the estradiol 17B protects cells from apoptosis, improves the fluidity of the membrane by the action neuronal canal expression ionic, and increases the apoprotein E.
- Antioxidant effect [90, 91]: it has been shown that concentrations of 17B estradiol protect cells from death caused by amyloid beta.
- There is growing evidence that estrogen, in particular 17B estradiol, is one of the factors that influence schizophrenic psychoses, reaching both development and brain functioning. The physiological higher estrogen levels in women not only lead to their slightly lower incidence but also delay the age of onset with a second peak of onset after the pre-menopause, coinciding with the time when the physiological levels of estrogen diminish. Low levels of estrogen during the menstrual cycle and after menopause could be associated with more severe symptoms in women.

Patients with emergent psychosis could present hypophysial-hypothalamic-gonadal dysfunction, with hyperprolactinemia and suppression of gonadal function, among which we find a fall in the production of estrogen and testosterone. This data, if replicated, could lead toward a pathogenic pathway of psychoses [92].

- Affect mature brain neuronal activator: modulation of neuronal hyper. From
  the beginning of the fertile period, the circulation of sex hormones (usually
  excitatory) requires compensating neurophysiological changes to enhance the
  action of inhibitory systems of the brain that counteract the action of these
  endocrine systems. The failure of this system favors the appearance of the first
  episode of schizophrenia. All these focus on two structures: amygdala and
  hippocampus.
- Moreover, a significant participation of estrogens on dopaminergic, serotonergic, and glutamatergic systems possibly gives them properties similar to those of atypical antipsychotic drugs [93–95].

#### 30.5.2 Estrogen as a Treatment

Sex differences in the incidence, onset, and course of schizophrenia have led to the hypothesis that estrogens play a protective role in the pathophysiology of this disorder [96].

Moreover and supporting the above lifecycle, studies have also demonstrated that women are more susceptible to a first episode or relapse of psychosis in two periods of hormonal changes, characterized by a decrease in estrogen levels, which are postpartum [97] and menopause [98, 99].

Several studies have found that estrogen has significant positive effects on the central nervous system above and beyond their primary endocrine and reproductive functions, to the extent which has been considered as a factor "psychoprotective nature." As already mentioned, being able to modulate multiple neurotransmitter systems, including dopaminergic, serotonergic, and glutamatergic pathways [96], estrogens have also anti-inflammatory properties (Sommer et al., 2013).

There are numerous open studies that have indicated that adding estrogen to antipsychotic treatment showed a significantly greater effect on psychotic symptoms. Hormone replacement therapy appears to reduce the intensity of negative symptoms in postmenopausal [45].

There have also been conducted double-blind studies that have compared estrogen versus placebo added to usual treatment group showing a better response in the control of psychotic symptoms and the score general psychopathology and PANSS. A recent meta-analysis has shown that estrogens given during few weeks have a positive effect in improving psychotic symptoms in women.

The first intervention trials with estrogen substitution of neuroleptic therapy have demonstrated antipsychotic effects.

## 30.6 Glutamate System in Women

According to the information available, the alteration in the level of glutamatergic transmission is a frequent pathological finding in different psychiatric illnesses within where we find the schizophrenia [100, 101]. There are many factors involved in this disorder, and the glutamatergic is one of the systems that contribute to the pathophysiology of the disease [100, 102–107]. So far, there is not enough information to help clarify the baseline of sex differences in the glutamatergic system. In addition, there has been few works to clarify them. Nevertheless, this contribution seems to be different in men and women. Thus, polymorphisms in different genes related to glutamate increase the risk of SCZ differently depending on the gender. The multiple single nucleotide polymorphisms (SNP) in an X-linked gene that encodes subunit 3 of the AMPA receptor, GRIA3, confer an increased risk of developing SCZ in women only [101]. Along with differences in genetic contributions, gender differences have been found in the expression of glutamate-related proteins and metabolites. Glutamine synthetized, an enzyme involved in the maintenance of glutamate levels, is upregulated in women with SCZ but not in men [100, 107].

What is more, women with SCZ show higher levels of NMDA receptor density compared to men with SCZ [100, 108]. It is assumed that the hypofunction of the NMDA receptor contributes to the pathophysiology of the SCZ; therefore, the increase in the density of the NMDA receptor in women with SCZ could be protective and contribute to gender differences in the symptomatology [100, 104]. Studies have pointed out the important role of how glutamate dysfunction affects men and women differently, which leads us to need new avenues for therapeutic development in these diseases biased by gender.

## 30.6.1 Are There Differences in the Dopaminergic System Associated with Sex?

In recent years researchers have described numerous differences in the structure and brain function in patients with schizophrenia associated with gender. Parellada and collaborators have explored this aspect by determining postsynaptic D2 receptors in striatal SPECT region and, on the other, differences in presynaptic dopamine transporter. In conclusion, we found no sex differences in the density of postsynaptic D2 receptors, although differences in presynaptic dopamine transporter have been described. All this makes it clear that the technical study should be deepened to evaluate the system dopaminergic neuroimaging mesolimbic receptors, extra-striatal D2/D3, different receptor subtypes D2, and other systems involved in the pathogenesis of schizophrenia.

### 30.7 Gender and Pharmacotherapeutic Approach

### 30.7.1 Pharmacokinetics and Effective Dosage

Men and women show important differences in terms of genetics, height, weight, diet, exercise, diseases, and habits like smoking and use of alcohol and illicit drugs [109, 110]. To continue with, we find differences in metabolism, absorption, volume of distribution, and excretion.

Young women on maintenance treatment (20–39 years) require lower doses of antipsychotics than men [111, 112] which are reversed after 40 years.

It has been demonstrated that plasma levels of antipsychotics are higher in women than in men [113, 114]. The distribution of drugs is influenced by body size, weight, blood volume, and adipose tissue [110, 115, 116] which is higher in women [110, 116].

This is an important factor because it results in a slower release of antipsychotics (lipophilic), and this factor could protect women in case of voluntary cessation of treatment [117].

To continue with, several studies showed that smoking reduces plasma levels of antipsychotics [118–120]. It has been considered that men have a higher prevalence

of smoking than women [121, 122], so this may explain that male patients require more doses of antipsychotic medication for response [123].

Some authors have found that women tend to have slower elimination of drugs and this results in higher concentrations in plasma and more side effects. When we use depot medications, intervals should be longer in women [109].

To finish with, Haas et al. [124] and Davis et al. [125] suggest a better response of women to psychosocial treatments, and this must be taken into account [126].

#### 30.7.2 Treatment and Treatment Response

It has been shown that the treatment response and general outcome in schizophrenia are worse in males than females [52, 88, 127–133]. The adherence to medical appointments and treatment is worse in males too [134–136].

Lo et al. [137] showed that being a female represented a protective factor.

It could be because women have more positive attitude to medication and to the fact of receiving help [138].

It has been seen that antipsychotic response is better in women [131, 132] and men need more dosages of them to work [132–142].

#### 30.7.3 Side Effects

Side effects differ significantly between men and women depending on multiple factors.

To begin with, several studies suggest that women present more metabolic syndrome, which is considered a risk factor for cardiovascular disease [143–146]. In a Turkish study, Boke et al. discovered that 61.4% of females developed metabolic syndrome and 22.4% of men [147].

A Spanish national cross-sectional study showed different cardiovascular risk factors in men and women: men suffered from hypertension and women from diabetes [148].

To continue with, antipsychotics increase body mass index more frequently in schizophrenic women [149–151].

Reproductive problems and potential harm to the newborn due to weight gain have to be taken into account too [152].

Regarding acute motor side effects, no clear sex difference has been shown for acute dystonia, akathisia, or parkinsonism.

To continue with, it seems that older age and female sex could be risk factors to develop tardive dyskinesia during treatment with aripiprazole [148]. In addition, several reviews have shown that tardive dyskinesia is more frequent in women after the age of 50 [88]. This might be associated with decline of estrogens after menopause [88, 130].

Another important side effect is QTc interval prolongation and torsade de pointes. It has been seen that they are more common in women [153, 154].

With regard to hormonal side effects, higher prolactin levels have been observed in women treated with antipsychotics, even with lower doses than men [131, 142, 155–158], particularly young women [159, 160].

Nonadherence to treatment because of sexual dysfunction due to high levels of prolactin is more frequent in men [161]. Hyperprolactinemia is also associated with low bone mineral density and osteoporosis, which are more frequent in schizophrenia than in controls [162]. Surprisingly, lower bone mineral density has been described in male patients compared to female [153, 163, 164].

To finish with, agranulocytosis and eosinophilia due to clozapine seem to be more common in women [165, 166].

#### 30.7.4 Special Considerations About Treatment in Women

Hormonal cycles have to be considered in schizophrenic women: menstrual cycle, pregnancy, postpartum, and menopause [88, 167–170]. Positive symptoms improve when estrogens are high and become worse when they are low [171]. Premenopausal women's response to treatment is better than postmenopausal [172].

#### 30.7.4.1 Menstrual Cycle

We have to consider premenstrual exacerbation in schizophrenic women. Antipsychotics produce irregular (78%) or complete (22–50%) suppression of menstrual cycles [173]. Despite these irregularities, contraception is needed [174] in order to avoid unplanned pregnancy, which is higher in women with schizophrenia [175, 176].

#### **30.7.4.2** Pregnancy

Schizophrenia itself (regardless of medication) is associated with pregnancy complications (placental abnormalities, antepartum hemorrhage, prematurity, pre-eclampsia, low birth weight, intrauterine growth retardation, fetal distress, neonatal hypoglycemia, low Apgar score, stillbirth, and congenital defects) [177]. In addition, every treatment added in pregnancy and lactation might be associated with teratogenic, obstetric, neonatal, and neurobehavioral complications [178].

Antipsychotic treatment in pregnancy should be in monotherapy and in minimal doses if possible to avoid complications [179]. The most commonly prescribed antipsychotic in pregnancy is olanzapine [178]. Risperidone and quetiapine can be used [180], but the clinical experience is not as good. Clozapine is not recommended [180, 181]. Due to the lack of research, aripiprazole, amisulpride, ziprasidone, and sertindole are not recommended [216]. Haloperidol could be another option during pregnancy [180].

#### 30.7.4.3 Postpartum and Breast-Feeding

The risk of psychosis is higher in postpartum due to the drop of estrogen levels [182, 183]. Guidelines do not recommend antipsychotic treatment during breast-feeding [184, 185]. If is not possible, at least women should take their medication before child's longest period of sleep.

#### **30.7.4.4** Menopause

The incidence of tardive dyskinesia is higher in postmenopausal women [71]. Age and being a woman increase QTc interval [186, 187]. It is important to check weight, bone mineral density, cholesterol, blood pressure, and glucose because antipsychotics increase cardiovascular risk [188]. Prolactin levels should be monitored too because hyperprolactinemia induces early menopause [189]. To conclude, first-generation antipsychotics should be avoided in postmenopausal women because of the side effects.

#### 30.8 Conclusions

There is an urgent need for more prospective studies to delimit specifically how gender affects to pharmacotherapy and to improve results and avoid side effects. Genetics and hormonal balance should be considered, and more studies during pregnancy, lactation, and after climacteric period are needed.

#### References

- Riecher-Rössler A, Butler S, Kulkarni J. Sex and gender differences in schizophrenic psychoses—a critical review. Arch Womens Ment Health. 2018;21:627–48. https://doi.org/10.1007/s00737-018-0847-9.
- Ochoa S, Usall J, Cobo J, Labad X, Kulkarni J. Gender differences in schizophrenia and first-episode psychosis: a comprehensive literature review. Schizophr Res Treatment. 2012;2012:916198. https://doi.org/10.1155/2012/916198. Epub 8 Apr 2012.
- Aleman A, Kahn RS, Selten JP. Sex differences in the risk of schizophrenia: evidence from meta-analysis. Arch Gen Psychiatry. 2003;60(6):565–71.
- Zhang XY, Chen da C, Xiu MH, Yang FD, Haile CN, Kosten TA, Kosten TR. Gender differences in never-medicated first-episode schizophrenia and medicated chronic schizophrenia patients. J Clin Psychiatry. 2012;73(7):1025–33. https://doi.org/10.4088/JCP.11m07422.
- 5. McEvoy JP, Meyer JM, Goff DC, Nasrallah HA, Davis SM, Sullivan L, Meltzer HY, Hsiao J, Scott Stroup T, Lieberman JA. Prevalence of the metabolic syndrome in patients with schizophrenia: baseline results from the Clinical Antipsychotic Trials of Intervention Effectiveness (CATIE) schizophrenia trial and comparison with national estimates from NHANESIII. Schizophr Res. 2005;80(1):19–32. Epub 30 Aug 2005.
- Chan RC, Chen EY, Cheung EF, Chen RY, Cheung HK. The components of executive functioning in a cohort of patients with chronic schizophrenia: a multiple single-case study design. Schizophr Res. 2006;81(2–3):173–89. Epub 26 Sept 2005.
- 7. Usall J, Busquets E, Araya S, Ochoa S, Gost A. Gender differences in schizophrenia. A literature review. Actas Esp Psiquiatr. 2000;28(3):178–85.
- 8. Häfner H, Maurer K, Löffler W, Fätkenheuer B, an der Heiden W, Riecher-Rössler A, Behrens S, Gattaz WF. The epidemiology of early schizophrenia. Influence of age and gender on onset and early course. Br J Psychiatry Suppl. 1994;23:29–38.
- Esterberg M, Trotman HD, Holtzman C, Compton MT, Walker EF. The impact of a family history of psychosis on age-at-onset and positive and negative symptoms of schizophrenia: a meta-analysis. Schizophr Res. 2010;120(1–3):121–30. https://doi.org/10.1016/j.schres.2010.01.01.
- Mendreck A, Mancini-Marïe A. Sex/gender differences in the brain and cognition in schizophrenia. Neurosci Biobehav Rev. 2016;67:57–78.

11. Hafner H, Riecher A, Maurer K, Loffler W, Munk-Jorgensen P, Stromgren E. How does gender influence age at first hospitalization for schizophrenia? A transnational case register study. Psychol Med. 1989;19(4):903–18.

- 12. Bergen SE, O'Dushlaine CT, Lee PH, et al. Genetic modifiers and subtypes in schizophrenia: investigations of age at onset, severity, sex and family history. Schizophr Res. 2014;154(1–3):48–53.
- 13. Albus M, Scherer J, Hueber S, Lechleuthner T, Kraus G, Zausinger S, Burkes S. The impact of familial loading on gender differences in age at onset of schizophrenia. Acta Psychiatr Scand. 1994;89(2):132–4.
- Van der Werf M, Hanssen M, Kohler S, Verkaaik M, Verhey FR, van Winkel R, van Os J, Allardyce J. Systematic review and collaborative recalculation of 133,693 incident cases of schizophrenia. Psychol Med. 2014;44(1):9–16.
- 15. Kirov G, Jones PB, Harvey I, Lewis SW, Toone BK, Rifkin L, Sham P, Murray RM. Do obstetric complications cause the earlier age at onset in male than female schizophrenics? Schizophr Res. 1996;20(1–2):117–24.
- Verdoux H, Bourgeois M. A comparative study of obstetric history in schizophrenics, bipolar patients and normal subjects. Schizophr Res. 1993;9(1):67–9.
- 17. Forsyth JK, Ellman LM, Tanskanen A, Mustonen U, Huttunen MO, Suvisaari J, Cannon TD. Genetic risk for schizophrenia, obstetric complications, and adolescent school outcome: evidence for gene-environment interaction. Schizophr Bull. 2013;(5):1067–76. https://doi.org/10.1093/schbul/sbs098. Epub 1 Sept 2012.
- Preti A, Cardascia L, Zen T, Marchetti M, Favaretto G, Miotto P. Risk for obstetric complications and schizophrenia. Psychiatry Res. 2000;96(2):127–39.
- 19. Goldstein JM, Faraone SV, Chen WJ, Tolomiczencko GS, Tsuang MT. Sex differences in the familial transmission of schizophrenia. Br J Psychiatry. 1990;156:819–26.
- Pulver AE, Liang KY. Estimating effects of proband characteristics on familial risk. The association between age at onset and familial risk in the Maryland schizophrenia sample. Genet Epidemiol. 1991;8(5):339–50.
- Goldstein JM, Cherkerzian S, Seidman LJ, Petryshen TL, Fitzmaurice G, Tsuang MT, Buka SL. Sex-specific rates of transmission of psychosis in the New England high-risk family study. Schizophr Res. 2011;128(1–3):150–5. https://doi.org/10.1016/j.schres.2011.01.019.
- Goldstein JM, Cherkerzian S, Tsuang MT, Petryshen TL. Sex differences in the genetic risk for schizophrenia: history of the evidence for sex-specific and sex-dependent effects. Am J Med Genet B Neuropsychiatr Genet. 2013;162(7):698–710. https://doi.org/10.1002/ ajmg.b.32159.
- 23. Maier W, Lichtermann D, Minges J, Heun R, Halmayer J. The impact of gender and age at onset on the familial aggregation of schizophrenia. Eur Arch Psychiatry Clin Neurosci. 1993;242(5):279–85.
- 24. Crocker CE, Tibbo PG. The interaction of gender and cannabis in early phase psychosis. Schizophr Res. 2018;194:18–25.
- González-Pinto A, Vega P, Ibáñez B, Mosquera F, Barbeito S, Gutiérrez M, Vieta E. Impact of cannabis and other drugs on age at onset of psychosis. J Clin Psychiatry. 2008;69(8): 1210–6.
- 26. Foti DJ, Kotov R, Guey LT, Bromet EJ. Cannabis use and the course of schizophrenia: 10-year follow-up after first hospitalization. Am J Psychiatr. 2010;167(8):987–93.
- 27. Barnes TRE, Mutsatsa SH, Hutton SB, Watt HC, Joyce EM. Comorbid substance use and age at onset of schizophrenia. Br J Psychiatry. 2006;188:237–42.
- 28. Rodríguez-Jiménez R, Aragüés M, Jiménez-Arriero MA, et al. Dual diagnosis in psychiatric inpatients: prevalence and general characteristics. Invest Clin. 2008;49(2):195–205.
- 29. Galderisi S, Bucci P, Üçok A, Peuskens J. No gender differences in social outcome in patients suffering from schizophrenia. J Eur Psychiatry. 2012;27(6):406–8.
- 30. Arendt M, Rosenberg R, Foldager L, Perto G, Munk-Jørgensen P. Cannabis-induced psychosis and subsequent schizophrenia-spectrum disorders: follow-up study of 535 incident cases. Br J Psychiatry. 2005;187(6):510–5.

- 31. Thorup A, Albert N, Bertelsen M. Gender differences in first-episode psychosis at 5-year follow-up—two different courses of disease? Results from the OPUS study at 5-year follow-up. Eur Psychiatry. 2014;29(1):1–8.
- González-Pinto A, Alberich S, Ruiz de Azúa S, Martínez-Cengotitabengoa M, Fernández M, Gutiérrez M. Psychosis and smoking cessation: difficulties in quitting associated with sex and substance abuse. Psychiatry Res. 2012;195(1–2):45–50.
- Lange EH, Nesvåg R, Ringen PA, Hartberg CB, Haukvik UK, Andreassen OA, Melle I, Agartz I. One year follow-up of alcohol and illicit substance use in first-episode psychosis: does gender matter? Compr Psychiatry. 2014;55(2):274–82. https://doi.org/10.1016/j.comppsych.2013.08.018.
- Salokangas RK. Prognostic implications of the sex of schizophrenic patients. Br J Psychiatry. 1983;142(2):145–51.
- 35. Shtasel DL, Gur RE, Gallacher F, Heimberg C, Gur RC. Gender differences in the clinical expression of schizophrenia. Schizophr Res. 1992;7(3):225–31.
- Tang YL, Gillespie CF, Epstein MP, Mao PX, Jiang F, Chen Q, Cai ZJ. Gender differences in 542 Chinese inpatients with schizophrenia. Schizophr Res. 2007;97(1–3):88–96. Epub 12 Jul 2007.
- Allen DN, Strauss GP, Barchard KA, Vertinski M, Carpenter WT, Buchanan RW. Differences in developmental changes in academic and social premorbid adjustment between males and females with schizophrenia. Schizophr Res. 2013;146(1–3):132–7. https://doi.org/10.1016/j. schres.2013.01.032. Epub 13 Mar 2013.
- Häfner H. Gender differences in schizophrenia. Psychoneuroendocrinology. 2003;28(Suppl 2):17–54.
- Ittig S, Studerus E, Papmeyer M, Uttinger M, Koranyi S, Ramyead A, Riecher-Rössler A. Sex differences in cognitive functioning in at-risk mental state for psychosis, first episode psychosis and healthy control subjects. Eur Psychiatry. 2015;30:242–50. https://doi.org/10.1016/j.eurpsy.2014.11.006.
- Krysta K, Murawiec S, Klasik A, Wiglusz MS, Krupka-Matuszczyk I. Sex-specific differences in cognitive functioning among schizophrenic patients. Psychiatr Danub. 2013;25:244

  –6.
- 41. Halari R, Mehrotra R, Sharma T, Ng V, Kumari V. Cognitive impairment but preservation of sexual dimorphism in cognitive abilities in chronic schizophrenia. Psychiatry Res. 2006;141(2):129–39.
- 42. Abu-Akel A, Bo S. Superior mentalizing abilities of female patients with schizophrenia. Psychiatry Res. 2013;201(3):794–9.
- Moriarty PJ, Lieber D, Bennett A, White L, Parrella M, Harvey PD, Davis KL. Gender differences in poor outcome patients with lifelong schizophrenia. Schizophr Bull. 2001;27(1):103–13.
- 44. Riecher-Rössler A, Häfner H, Stumbaum M, Maurer K, Schmidt R. Can estradiol modulate schizophrenic symptomatology? Schizophr Bull. 1994;20(1):203–14.
- 45. Lindamer LA, Buse DC, Lohr JB, Jeste DV. Hormone replacement therapy in postmenopausal women with schizophrenia: positive effect on negative symptoms? Biol Psychiatry. 2001;49(1):47–51.
- 46. Kulkarni J, Riedel A, de Castella AR, Fitzgerald PB, Rolfe TJ, Taffe J, Burger H. Estrogen a potential treatment for schizophrenia. Schizophr Res. 2001;41(1):137–44.
- Rao ML, Kölsch H. Effects of estrogen on brain development and neuroprotection—implications for negative symptoms in schizophrenia. Psychoneuroendocrinology. 2003;28(Suppl 2):83–96.
- 48. Keenan PA, Ezzat WH, Ginsburg K, Moore GJ. Prefrontal cortex as the site of estrogen's effect on cognition. Psychoneuroendocrinology. 2001;26(6):577–90.
- 49. Myin-Germeys I, Krabbendam L, Delespaul PA, van Os J. Sex differences in emotional reactivity to daily life stress in psychosis. J Clin Psychiatry. 2004;65(6):805–9.
- 50. Cotton SM, Lambert M, Schimmelmann BG, Foley DL, Morley KI, McGorry PD, Conus P. Gender differences in premorbid, entry, treatment, and outcome characteristics in a treated epidemiological sample of 661 patients with first episode psychosis. Schizophr Res. 2009;114(1–3):17–24. https://doi.org/10.1016/j.schres.2009.07.002.

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 Kao YC, Liu YP. Effects of age of onset on clinical characteristics in schizophrenia. BMC Psychiatry. 2010;18:10–63. https://doi.org/10.1186/1471-244X-10-63.

- 52. Angermeyer MC, Kühn L, Goldstein JM. Gender and the course of schizophrenia: differences in treated outcomes. Schizophr Bull. 1990;16(2):293–307.
- Uggerby P, Nielsen RE, Correll CU, Nielsen J. Characteristics and predictors of long-term institutionalization in patients with schizophrenia. Schizophr Res. 2011;131(1–3):120–6. https://doi.org/10.1016/j.schres.2011.03.001. Epub 1 Apr 2011.
- Opjordsmoen S. Long-term clinical outcome of schizophrenia with special reference to gender differences. Acta Psychiatr Scand. 1991;83(4):307–13.
- 55. Ram R, Bromet EJ, Eaton WW, Pato C, Schwartz JE. The natural course of schizophrenia: a review of first-admission studies. Schizophr Bull. 1992;18(2):185–207.
- McEwen BS, Milner TA. Understanding the broad influence of sex hormones and sex differences in the brain. J Neurosci Res. 2017;95(1–2):24–39. https://doi.org/10.1002/jnr.23809.
- Ingalhalikar M, Smith A, Parker D, Satterthwaite TD, Elliott MA, Ruparel K. Sex differences in the structural connectome of the human brain. Proc Natl Acad Sci U S A. 2014;111(2):823– 8. https://doi.org/10.1073/pnas.1316909110.
- Walder DJ, Yaffe B, Ehrlich Y. Chapter 5—Sexual dimorphisms in psychosis risk: a neurodevelopmental perspective. In: Shansky RM, editor. Sex differences in the central nervous system. San Diego, CA: Academic Press; 2016. p. 107–27. https://doi.org/10.1016/B978-0-12-802114-9.00005-6.
- Nopoulos P, Laum M, Andreasen NC. Sex differences in brain morphology in schizophrenia. Am J Psychiatry. 1997;154:1648–54.
- Gur RE, Mozley PD, Shtasel DL, Cannon TD, Gallacher F, Turetsky B, Grossman R, Gur RC. Clinical subtypes of schizophrenia: differences in brain and CSF volume. Am J Psychiatry. 1994;151(3):343–50.
- 61. Lewine RRJ, Gulley LR, Risch SC, Jewart R, Houpt JL. Sexual dimorphism, brain morphology and schizophrenia. Schizophr Bull. 1990;16:195–204.
- 62. Raine A, Harrison GN, Reynolds GP, Sheard C, Cooper JE, Medley I. Structural and functional characteristics of the corpus callosum in schizophrenics, psychiatric controls and normal controls. A magnetic resonance imaging and neuropsychological evaluation. Arch Gen Psychiatry. 1990;47(11):1060–4.
- 63. Ward KE, Friedman L, Wise A, Schulz SC. Meta-analysis of brain and cranial size in schizo-phrenia. Schizophr Res. 1996;22:197–213.
- Haijma SV, Van Haren N, Cahn W. Brain volumes in schizophrenia: a meta-analysis in over 18.000 subjects. Schizophr Bull. 2013;39(5):1129–38.
- 65. Gruner P, Christopher C, Robinson DG. Pituitary volumen in first episode schizophrenia. Psychiatry Res Neuroimaging. 2012;203:100–2.
- 66. Romo-Nava F, Hoogenboom WS, Pelavin PE. Pituitary volume in schizophrenia spectrum disorders. Schizophr Res. 2013;146:301–7.
- 67. Cowell PE, Kostianovsky DJ. Sex differences in neuroanatomical and clinical correlations in schizophrenia. Am J Psychiatry. 1996;153(6):799.
- Malla AK, Tarhar J, Norman RMG, Assis L. Computed tomographic findings in schizphrenia: relation with symptom dimensions and sex differences. J Psychiatry Neurosci. 1999;24(2):131–8.
- 69. Falkenburg J, Tracy DK. Sex and schizophrenia: a review of gender differences. Psychosis. 2014;6(1):61–9. https://doi.org/10.1080/17522439.2012.733405.
- McGregor C, et al. Estrogens and the cognitive symptoms of schizophrenia: possible neuroprotective mechanisms. Front Neuroendocrinol. 2017;47:19–33.
- 71. Hafner H. Gender differences in schizophrenia. Psychoneuroendocrinology. 2003;28(Suppl 2):17–54.
- 72. Angermeyer MC, Kuhn L. Gender differences in age at onset of schizophrenia. An overview. Eur Arch Psychiatry Neurol Sci. 1988;237:351–64.
- Eranti SV, Maccabe JH, Bundy H, Murray RM. Gender difference in age at onset of schizophrenia: a meta-analysis. Psychol Med. 2013;43:155–67.

- 74. Thara R, Kamath S. Women and schizophrenia. Indian J Psychiatry. 2015;57(Suppl 2):246–51.
- Thara R. Twenty year course of schizophrenia: the Madras Longitudinal Study. Can J Psychiatr. 2004;49:564–9.
- 76. Canuso CM, Pandina G. Gender and schizophrenia. Psychopharmacol Bull. 2007;40:178–90.
- 77. Castle D, Sham P, Murray R. Differences in distribution of ages of onset in males and females with schizophrenia. Schizophr Res. 1998;33:179–83.
- 78. Loranger AW. Sex difference in age at onset of schizophrenia. Arch Gen Psychiatry. 1984;41:157–61.
- Goldstein JM, Seidman LJ, Goodman JM, Koren D, Lee H, Weintraub S, Tsuang MT. Are there sex differences in neuropsychological functions among patients with schizophrenia? Am J Psychiatry. 1998;155:1358–64.
- 80. Torniainen M, Suvisaari J, Partonen T, Castaneda A, Kuha A, Perala J. Differences in cognition among persons with schizophrenia and healthy first-degree relatives. Psychiatry Res. 2011;188:7–12.
- 81. Han M, Huang X, Xiu M, Hui L, Liu H, Kosten T, Zhang X. Gender differences in cognitive function of patients with chronic schizophrenia. Prog Neuropsychopharmacol Biol Psychiatry. 2012;39:358–63.
- Vaskinn A, Sundet K, Simonsen C, Hellvin T, Melle I, Andreassen OA. Sex differences in neuropsychological performance and social functioning in schizophrenia and bipolar disorder. Neuropsychology. 2011;25:499–510.
- 83. Seeman MV, Lang M. The role of estrogens in schizophrenia gender differences. Schizophr Bull. 1990;16(2):185–94.
- 84. Supprian T, Kalus P. Sexual dimorphism of the human brain—a review of the literature. Fortschr Neurol Psychiatr. 1996;64(10):382–9.
- Saugstad LF. The maturational theory of brain development and cerebral excitability in the multifactorially inherited manic-depressive psychosis and schizophrenia. Int J Psychophysiol. 1994;18(3):189–203.
- 86. Downhill JE Jr, Buchsbaum MS, Wei T, Spiegel-Cohen J, Hazlett EA, Haznedar MM, Silverman J, Siever LJ. Shape and size of the corpus callosum in schizophrenia and schizotypal personality disorder. Schizophr Res. 2000;42(3):193–208.
- 87. Häfner H, an der Heiden W, Hambrecht M, Riecher-Rössler A, Maurer K, Löffler W, Fätkenheuer B. A chapter in systematic schizophrenia research the search for causal explanations for sex differences in age of onset. Nervenarzt. 1993;64(11):706–16.
- 88. Leung A, Chue P. Sex differences in schizophrenia, a review of the literature. Acta Psychiatr Scand Suppl. 2000;401:3–38.
- 89. Haus-Seuffert P, Meisterernst M. Mechanisms of transcriptional activation of cAMP-responsive element-binding protein CREB. Mol Cell Biochem. 2000;212(1–2):5–9.
- 90. Kölsch H, Lütjohann D, Tulke A, Björkhem I, Rao ML. The neurotoxic effect of 24-hydroxycholesterol on SH-SY5Y human neuroblastoma cells. Brain Res. 1999;818(1):171–5.
- 91. Kölsch H, Ludwig M, Lütjohann D, Rao ML. Neurotoxicity of 24-hydroxycholesterol, an important cholesterol elimination product of the brain, may be prevented by vitamin E and estradiol-17beta. J Neural Transm. 2001;108(4):475–88.
- 92. Riecher-Rössler A, Butler S, Kulkarni J. Sex and gender differences in schizophrenic psychoses—a critical review. Arch Womens Ment Health. 2018;2018:1–22.
- Hughes ZA, Liu F, Marquis K, Muniz L, Pangalos MN, Ring RH, Whiteside GJ, Brandon NJ. Estrogen receptor neurobiology and its potential for translation into broad spectrum therapeutics for CNS disorders. Curr Mol Pharmacol. 2009;2:215–36.
- 94. Taylor GT, Maloney S, Dearborn J, et al. Hormones in the mentally disturbed brain: steroids and peptides in the development and treatment of psychopathology. Cent Nerv Syst Agents Med Chem. 2009;9(4):331–60.
- Kulkarni J, Hayes E, Gavrilidis E. Hormones and schizophrenia. Curr Opin Psychiatry. 2012;25:89–95.

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96. Kulkarni J, Gavrilidis E, Worsley R, Hayes E. Role of estrogen treatment in the management of schizophrenia. CNS Drugs. 2012;26(7):549–57.

- 97. Kendell RE, Chalmers JC, Platz C. Epidemiology of puerperal psychoses. Br J Psychiatry. 1987;150:662–73.
- 98. Riecher-Rossler A, Seeman MV. Oestrogens and schizophrenia: introduction. Arch Womens Ment Health. 2002;5(3):91–2.
- 99. Seeman MV. Psychopathology in women and men: focus on female hormones. Am J Psychiatry. 1997;154(12):1641–7.
- 100. Wickens MM, Bangasser DA, Briand LA. Sex differences in Psychiatry Disease: A Focus on the Glutamate System. Front Mol Neurosci. 2018;11:197.
- 101. Magri C, Gardella R, Valsecchi P, Barlati SD, Guizzetti L, Imperadori L, et al. Study on GRIA2, GRIA3 and GRIA4 genes highlights a positive association between schizophrenia and GRIA3 in female patients. Am J Med Genet B Neuropsychiatr Genet. 2008;147B:745– 53. https://doi.org/10.1002/ajmg.b.30674.
- 102. Olney JW, Farber NB. Glutamate receptor dysfunction and schizophrenia. Arch Gen Psychiatry. 1995;52:998–1007. https://doi.org/10.1001/archpsyc.1995.03950240016004.
- 103. Goff DC, Coyle JT. The emerging role of glutamate in the pathophysiology and treatment of schizophrenia. Am J Psychiatry. 2001;158:1367–77. https://doi.org/10.1176/appi.aip.158.9.1367.
- 104. Coyle JT, Tsai G, Goff DC. Ionotropic glutamate receptors as therapeutic targets in schizophrenia. Curr Drug Targets CNS Neurol Disord. 2002;1:183–9. https://doi. org/10.2174/1568007024606212.
- 105. Tsai G, Coyle JT. Glutamatergic mechanisms in schizophrenia. Annu Rev Pharmacol Toxicol. 2002;42:165–79. https://doi.org/10.1146/annurev.pharmtox.42.082701.160735.
- 106. Javitt DC. Glutamate and schizophrenia: phencyclidine, N-methyl-D-aspartate receptors, and dopamine-glutamate interactions. Int Rev Neurobiol. 2007;78:69–108. https://doi.org/10.1016/S0074-7742(06)78003-5.
- 107. Martins-de-Souza D, Maccarrone G, Wobrock T, Zerr I, Gormanns P, Reckow S, et al. Proteome analysis of the thalamus and cerebrospinal fluid reveals glycolysis dysfunction and potential biomarkers candidates for schizophrenia. J Psychiatr Res. 2010;44:1176–89. https://doi.org/10.1016/j.jpsychires.2010.04.014.
- 108. Nudmamud-Thanoi S, Reynolds GP. The NR1 subunit of the glutamate/NMDA receptor in the superior temporal cortex in schizophrenia and affective disorders. Neurosci Lett. 2004;372:173–7. https://doi.org/10.1016/j.neulet.2004.09.035.
- Seeman MV. Gender differences in the prescribing of antipsychotic drugs. Am J Psychiatry. 2004;161:1324–33.
- 110. Yonkers KA, Kando JC, Cole JO, et al. Gender Differences in Pharmacokinetics and Pharmacodynamics of Psychotropic Medication. Am J Psychiatry. 1992;149:587–95.
- 111. Seeman MV. Interaction of sex, age, and neuroleptic dose. Compr Psychiatry. 1983;24(2):125–8.
- 112. Galderisi S, Bucci P, Üçok A, Peuskens J. No gender differences in social outcome in patients suffering from schizophrenia. Eur Psychiatry. 2012;27(6):406–8.
- 113. Kelly DL, Conley RR, Tamminga CA. Differential olanzapine plasma concentrations by sex in a fixed-dose study. Schizophr Res. 1999;40(2):222–39.
- 114. Harris RZ, Benet LZ, Schwartz JB. Gender effects in pharmacokinetics and pharmacodynamics. Drugs. 1995;50:222–39.
- 115. Sica DA, Wood M, Hess M. Gender and its effect in cardiovascular pharmacotherapeutics: recent considerations. Congest Heart Fail. 2005;11(3):163–6.
- 116. Schwartz JB. The influence of sex on pharmacokinetics. Clin Pharmacokinet. 2003;42: 107–21.
- 117. Seeman MV. Neuroleptic expressed prescription for men and women. Social Pharmacol. 1989;3:219–36.
- 118. Haring C, Meise U, Humpel C, et al. Dose-related plasma levels of clozapine: influence of smoking behavior, sex, and age. Psychopharmacology. 1989;99(1):38–40.

- 119. Hughes JR. Possible effects of smoker-free inpatient units on psychiatric diagnosis and treatment. J Clin Psychiatry. 1993;54:109–14.
- 120. Goff DC, Henderson DC, Amico E. Cigarette smoking in schizophrenia: relationship to psychopathology and medication side effects. Am J Psychiatry. 1992;149(9):1189–94.
- 121. Callaghan JT, Bergstrom RF, Ptak LR, et al. Olanzapine: pharmacokinetic and pharmacodynamic profile. Clin Pharmacokinet. 1999;37:177–93.
- 122. Carrillo JA, Herraiz AG, Ramos SI, et al. Role of the smoking-induced cytochrome P450 (CYP)1A2 and polymorphic CYP2D6 in steady-state concentration of olanzapine. J Clin Psychopharmacol. 2003;23(2):119–27.
- 123. Crawford MB, DeLisi LE. Issues related to sex differences in antipsychotic treatment. Curr Opin Psychiatry. 2016;29(3):211–7.
- 124. Haas GL, Glick ID, Clarkin JF, Spencer JH, Lewis AB. Gender and schizophrenia outcome: a clinical trial of an inpatient family intervention. Schizophr Bull. 1990;16(2):277–92.
- 125. Davis JA, Goldstein MJ, Nuechterlein KH. Gender differences in family attitudes about schizophrenia. Psychol Med. 1996;26(4):689–96.
- 126. Riecher-Rössler A, Häfner H. Gender aspects in schizophrenia: bridging the border between social and biological psychiatry. Acta Psychiatr Scand Suppl. 2000;102:58–62.
- 127. Abel KM, Drake R, Goldstein JM. Sex differences in schizophrenia. Int Rev Psychiatry. 2010;22:417–28.
- 128. Ochoa S, Usall J, Cobo J, et al. Gender differences in schizophrenia and first-episode psychosis: a comprehensive literature review. Schizophr Res Treat. 2012;2012:916198.
- 129. Cotton SM, Lambert M, Schimmelmann BG, et al. Gender differences in premorbid, entry, treatment, and outcome characteristics in a treated epidemiological sample of 661 patients with first episode psychosis. Schizophr Res. 2009;114:17–24.
- 130. da Silva TL, Ravindrana AV. Contribution of sex hormones to gender differences in schizophrenia: a review. Asian J Psychiatr. 2015;18:2–14.
- 131. Szymanski S, Lieberman JA, Alvir JM, et al. Gender differences in onset of illness, treatment response, course, and biologic indexes in first-episode schizophrenic patients. Am J Psychiatry. 1995;152(5):698–703.
- 132. Seeman MV. Current outcome in schizophrenia: women vs men. Acta Psychiatr Scand. 1986;73(6):609–17.
- 133. Robinson DG, Woerner MG, Alvir JMJ, et al. Predictors of treatment response from a first episode of schizophrenia or schizoaffective disorder. Am J Psychiatry. 1999;156(4):544–9.
- 134. Sellwood W, Tarrier N. Demographic factors associated with extreme non-compliance in schizophrenia. Soc Psychiatry Psychiatr Epidemiol. 1994;29(4):172–7.
- 135. Nose M, Barbui C, Tansella M. How often do patients with psychosis fail to adhere to treatment programmes? A systematic review. Psychol Med. 2003;33(7):1149–60.
- Law MR, Soumerai SB, Ross-Degnan D, et al. A longitudinal study of medication nonadherence and hospitalization risk in schizophrenia. J Clin Psychiatry. 2008;69:47–53.
- Lo WH, Lo T. A ten-year follow-up study of Chinese schizophrenics in Hong Kong. Br J Psychiatry. 1977;131(1):2.
- 138. Galdas PM, Cheater F, Marshall P. Men and health help-seeking behaviour: literature review. J Adv Nurs. 2005;49(6):616–23.
- 139. Kulkarni J, Gavrilidis E, Wang W, et al. Estradiol for treatment-resistant schizophrenia: a large-scale randomized-controlled trial in women of child-bearing age. Mol Psychiatry. 2015;20(6):695–702.
- 140. Begemann MJH, Dekker CF, van Lunenburg M, et al. Estrogen augmentation in schizophrenia: a quantitative review of current evidence. Schizophr Res. 2012;141(2–3):179–84.
- 141. Ghafari E, Fararouie M, Shirazi HG, et al. Combination of estrogen and antipsychotics in the treatment of women with chronic schizophrenia. Clin Schizophr Relat Psychoses. 2013;6(4):172–6.
- 142. Melkersson KI, Hulting AL, Rane AJ. Dose requirement and prolactin elevation of antipsychotics in male and female patients with schizophrenia or related psychoses. Br J Clin Pharmacol. 2001;51(4):317–24.

736 A. I. Cano-Baena et al.

143. Carliner H, Collins PY, Cabassa LJ, et al. Prevalence of cardiovascular risk factors among racial and ethnic minorities with schizophrenia spectrum and bipolar disorders: a critical literature review. Compr Psychiatry. 2014;55(2):233–47.

- 144. Bener A, Al-Hamaq AO, Dafeeah EE. A two fold risk of metabolic syndrome in a sample of patients with schizophrenia: do consanguinity and family history increase risk? Diabetes Metab Syndr. 2014;8(1):24–9.
- 145. Huang MC, Lu ML, Tsai CJ, et al. Prevalence of metabolic syndrome among patients with schizophrenia or schizoaffective disorder in Taiwan. Acta Psychiatr Scand. 2009;120:274–80.
- 146. Meyer JM, Nasrallah HA, McEvoy JP, et al. The Clinical Antipsychotic Trials of Intervention Effectiveness (CATIE) Schizophrenia Trial: clinical comparison of subgroups with and without the metabolic syndrome. Schizophr Res. 2005;80(1):9–18.
- 147. Boke O, Aker S, Sarisoy G, Saricicek EB, Sahin AR. Prevalence of metabolic syndrome among inpatients with schizophrenia. Int J Psychiatry Med. 2008;38(1):103–12.
- 148. Bobes J, Arango C, Aranda P, Carmena R, Garcia-Garcia M, Rejas J, CLAMORS Study Collaborative Group. Cardiovascular and metabolic risk in outpatients with schizophrenia treated with antipsychotics: results of the CLAMORS Study. Schizophr Res. 2007;90(1–3):162–73.
- 149. Xiang YT, Wang CY, Weng YZ, et al. Sex differences in patients with schizophrenia: a prospective, multi-center study. Psychiatry Res. 2010;177:294–8.
- 150. Limosin F, Gasquet I, Leguay D, et al. Body mass index and prevalence of obesity in a French cohort of patients with schizophrenia. Acta Psychiatr Scand. 2008;118(1):19–25.
- 151. Verma S, Liew A, Subramaniam M, et al. Effect of treatment on weight gain and metabolic abnormalities in patients with first-episode psychosis. Aust N Z J Psychiatry. 2009;43(9):812–7.
- 152. Seeman MV. Secondary effects of antipsychotics: women at greater risk than men. Schizophr Bull. 2009;35(5):937–48.
- 153. Vieweg WV, Wood MA, Fernandez A, et al. Proarrhythmic risk with antipsychotic and antidepressant drugs: implications in the elderly. Drugs Aging. 2009;26(12):997–1012.
- 154. Meltzer HY, Busch D. Serum prolactin response to chlorpromazine and psychopathology in schizophrenics: implications for the dopamine hypothesis. Psychiatry Res. 1983;9(4):285–99.
- 155. Nathan RS, Sachar EJ, Ostrow L, et al. A preliminary study of sex-related differences in prolactin responses to dopamine blockade and insulin hypoglycemia and in penfluridol plasma levels in schizophrenic patients. Psychopharmacology. 1983;80(1):46–9.
- Koreen AR, Lieberman J, Alvir J, et al. Plasma homovanillic acid levels in first-episode schizophrenia. Psychopathology and treatment response. Arch Gen Psychiatry. 1994;51(2):132–8.
- 157. Sumiyoshi T, Hasegawa M, Jayathilake K, et al. Sex differences in plasma homovanillic acid levels in schizophrenia and normal controls: relation to neuroleptic resistance. Biol Psychiatry. 1997;41(5):560–6. 193(3):153–6.
- 158. Yasui N, Kondo T, Otani K, et al. Prolactin response to bromperidol treatment in schizophrenic patients. Pharmacol Toxicol. 1998;82:153–6.
- 159. O'Keane V. Review antipsychotic-induced hyperprolactinaemia, hypogonadism and osteoporosis in the treatment of schizophrenia. J Psychopharmacol. 2008;22(2 Suppl):70–5.
- 160. Dursun SM, Wildgust HJ, Strickland P, Goodwin GM, Citrome L, Lean M. The emerging physical health challenges of antipsychotic associated hyperprolactinaemia in patients with serious mental illness. J Psychopharmacol. 2008;22(2 Suppl):3–5.
- 161. Halbreich U, Kahn LS. Hormonal aspects of schizophrenias: an overview. Psychoneuroendocrinology. 2003;28:1–16.
- 162. Stubbs B, De Hert M, Sepehry AA, et al. A meta-analysis of prevalence estimates and moderators of low bone mass in people with schizophrenia. Acta Psychiatr Scand. 2014;130(6):470–86.
- Halbreich U, Rojansky N, Palter S, et al. Decreased bone mineral density in medicated psychiatric patients. Psychosom Med. 1995;57(5):485–91.
- 164. Hummer M, Malik P, Gasser RW, et al. Osteoporosis in patients with schizophrenia. Am J Psychiatry. 2005;162:162–7.

- 165. Alvir JM, Lieberman JA. A reevaluation of the clinical characteristics of clozapineinduced agranulocytosis in light of the United States experience. J Clin Psychopharmacol. 1994;14:87–9.
- 166. Banov MD, Tohen M, Friedberg J. High risk of eosinophilia in women treated with clozapine. J Clin Psychiatry. 1993;54:466–9.
- 167. Auquier P, Lançon C, Rouillon F, et al. Mortality in schizophrenia. Pharmacoepidemiol Drug Saf. 2006;15(12):873–9.
- Targum SD, Caputo KP, Ball SK. Menstrual cycle phase and psychiatric admissions. J Affect Disord. 1991;22(1):49–53.
- Lande RG, Karamchandani V. Chronic mental illness and the menstrual cycle. J Am Osteopath Assoc. 2002;102(12):655–9.
- 170. Riecher-Rössler, A.W., Estrogens and schizophrenia, in Oestrogen effects in psychiatric disorders, N. Bergemann and A. Riecher-Rössler. 2005, Springer-Verlag Wien 31–52.
- 171. Thompson KN, Kulkarni J, Sergejew AA. Extrapyramidal symptoms and oestrogen. Acta Psychiatr Scand. 2000;101(2):130–4.
- 172. Goldstein JM, Cohen LS, Horton NJ, et al. Sex differences in clinical response to olanzapine compared with haloperidol. Psychiatry Res. 2002;110(1):27–37.
- 173. Just MJ. The influence of atypical antipsychotic drugs on sexual function. Neuropsychiatr Dis Treat. 2015;11:1655–61.
- 174. Seeman MV. Antipsychotic-induced amenorrhea. J Ment Health. 2011;20:484–91.
- 175. Miller LJ. Sexuality, reproduction, and family planning in women with schizophrenia. Schizophr Bull. 1997;23(4):623–35.
- 176. Seeman MV. Menstrual exacerbation of schizophrenia symptoms. Acta Psychiatr Scand. 2012;125:363–71.
- 177. Galbally M, Snellen M, Power J. Antipsychotic drugs in pregnancy: a review of their maternal and fetal effects. Ther Adv Drug Saf. 2014;5(2):100–9.
- McCauley-Elsom K, Kulkarni J. Managing psychosis in pregnancy. Aust N Z J Psychiatry. 2007;41(3):289–92.
- 179. Sadowski A, Todorow M, Yazdani Brojeni P, et al. Pregnancy outcomes following maternal exposure to second-generation antipsychotics given with other psychotropic drugs: a cohort study. Br Med J Open. 2013;3(7):e003062.
- 180. Hasan A, Falkai P, Wobrock T, et al. World Federation of Societies of Biological Psychiatry (WFSBP) guidelines for biological treatment of schizophrenia part 3: update 2015 management of special circumstances: depression, suicidality, substance use disorders and pregnancy and lactation. World J Biol Psychiatry. 2015;16:142–70.
- 181. Mehta TM, Van Lieshout RJ. A review of the safety of clozapine during pregnancy and lactation. Arch Womens Ment Health. 2016;20(1):1–9.
- 182. Kendell RE, Chalmers JC, Plats C. Epidemiology of puerperal psychosis. Br J Psychiatry. 1987;150(5):662–73.
- 183. Ahokas A, Aito M, Turiainen S. Association between oestradiol and puerperal psychosis. Acta Psychiatr Scand. 2000;101(2):167–9; discussion 169–70.
- 184. Lehman AF, Lieberman JA, Dixon LB, et al. Practice guideline for the treatment of patients with schizophrenia, second edition. Am J Psychiatry. 2004;161(2):1–56.
- 185. DGPPN. S3 praxisleitlinien in psychiatrie und psychotherapie. Band 1—Behandlungsleitlinie schizophrenie. Dresden: Steinkopff-Verlag; 2006.
- 186. Yang FD, Wang XQ, Liu XP, et al. Sex difference in QTc prolongation in chronic institutionalized patients with schizophrenia on long-term treatment with typical and atypical antipsychotics. Psychopharmacology. 2011;216(1):9–16.
- 187. Al-Khatib SM, Allen LaPointe NM, Kramer JM, et al. What clinicians should know about the QT interval. JAMA. 2003;289(16):2120–7.
- 188. Seeman MV. Treating schizophrenia at the time of menopause. Maturitas. 2012;72(2):117-20.
- 189. Lange B, Mueller JK, Leweke FM, Bumb JM. How gender affects the pharmacotherapeutic approach to treating psychosis—a systematic review. Expert Opin Pharmacother. 2017;18(4):351–62.



## **Gender Differences in Bipolar Disorder**

31

## Saioa López-Zurbano and Ana González-Pinto

#### **Abstract**

The main objective of this chapter is to summarize the clinical differences found in the literature between men and women suffering from bipolar disorder. The secondary objective is to analyze the treatment and how there are gender differences in the adherence to medication. Briefly, we could say that in men the manic component predominates, both at onset and throughout their lifetime, and that they usually have comorbid drug abuse. On the other hand, women usually tend to have a predominance of depression; they have a depressive polarity both at onset and during their lifetime and experience more mixed mania episodes. Furthermore, in women onset often occurs at an older age, comorbidity of physical pathological conditions is common, and adherence to medication is greater than in men.

We cannot forget that women can experience two very important periods: pregnancy and postpartum. Both can be critical periods for the disorder, and a relapse or recurrence at either stage can have serious consequences not just for the woman but also for her baby. Because the effect of medication on the fetus still remains unclear, it makes it even more difficult to set the treatment during these periods.

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#### 31.1 Introduction

Bipolar disorder is a lifelong serious mental disorder that causes extreme dysregulation in mood, energy, and functioning. Lifetime prevalence is estimate to be 0.6% for bipolar disorder type I (BPI), 0.4% for bipolar disorder type II (BPII), and 2.4% for bipolar spectrum disorders [1]. Both genders are equally at risk of developing the illness. The onset of bipolar disorder usually occurs in adolescence or early adulthood, but it can appear during other periods in a lifetime, such as childhood or later adulthood. It can be a difficult disease to live with because it affects familial relationships, social aspects, and employment, causing a general worsening in the quality of life of the patient.

The clinical course of bipolar disorder is characterized by the occurrence of one or more manic episodes, and often individuals also have recurrent episodes of major depression. Manic episodes are periods of abnormally and persistently elevated, irritable, or expansive mood and abnormal and persistent activity or energy increasing. During this period the patient may experience the following symptoms: inflated self-esteem or grandiosity feelings; decreased need for sleep; being more talkative than usual or feeling pressure to keep talking; flight of ideas or subjective experience of racing thoughts; distractibility; psychomotor agitation; or excessive involvement in pleasurable activities that can likely have painful consequences [2]. The diagnostic symptoms for major depressive episodes are the presence of a depressed mood and loss of interest/pleasure, which associate significant weight loss (when not dieting) or appetite changes; insomnia or hypersomnia; fatigue or loss of energy; markedly diminished interest or pleasure in (almost) all activities; psychomotor agitation or retardation; fatigue or energy loss; feelings of worthlessness or excessive or inappropriate guilt; diminished ability to think, concentrate, or make decision; and recurrent thoughts of death or suicide [2]. Usually, a person with bipolar disorder only has some of these symptoms; it is very uncommon that they all manifest at the same time.

There are two types of diagnosis: bipolar I disorder and bipolar II disorder. Bipolar I disorder is characterized by recurrent episodes of mania and depression, whereas bipolar II disorder is defined as recurrent episodes of depression and hypomania [2].

Many aspects of bipolar disorder have been investigated in several studies, including diagnosis, course of illness, psychiatric and physical comorbidity, suicide attempts, rapid cycling, and mixed states [3]. However, the role gender could play in all those aspects still remains unclear. In this chapter, we review all the information currently available on the matter.

## 31.2 Gender Differences in Bipolar Disorder

Historically it has been said that lifetime prevalence for bipolar disorder I is the same for both genders, whereas there are more women diagnosed with bipolar II disorder [5, 6]. Traditional epidemiological studies give prevalence rates of 0.4–1.6% for

bipolar I disorder and 0.5–1.9% for bipolar II disorder [1]. As the bipolarity spectrum is being extended and the newer entity of bipolar II disorder is even more prevalent in the general population, the affected population is about 5% [2, 7].

Although the lifetime prevalence of bipolar disorder appears to be roughly equal in both genders, some studies have shown that women are more likely to be diagnosed with bipolar II disorder II, while men are more likely to be diagnosed with BPI [1, 8].

#### 31.3 Course and Clinical Characteristics of Illness

The biggest gender differences are seen for bipolar I disorder, especially when we refer to clinical features, course of illness, and comorbidity (Table 31.1) [9]. In women, the disease is characterized by a predominance of depression [2, 10, 11]; this means that the polarity at the onset [12] and during a lifetime is depressive. Studies show that women spend more time in the depressed phase, with longer hospitalization for this reason [6, 13]. They also have more depression symptoms in manic phases; thus, they are more likely to experience mixed mania [2, 10]. This way, women also experience more suicidal ideation and more suicide attempts (whereas men make fewer attempts, but they are more violent and lethal) [9, 10, 14]. They also have a higher probability of experiencing mood instability [10], seasonal episodes, and rapid cycling [2, 13]. On the other hand, men tend to have a predominance of manic components: their temperament is hyperthymic, and the onset of the illness is usually with a manic episode [9, 10, 12, 13]. The disorder begins at a younger age in men, with an earlier first hospitalization [6]. This may explain why men are more often single [10].

Women are more often hospitalized than men and take more antidepressive and sedative/hypnotic treatments [10, 13, 14], which can be explained with different reasons. First of all, women seek more treatment, probably because of their depressive polarity, as it is described how bipolar patients ask for help during depressive phases. Second, women being more frequently married and having feminine gender behavioral expectations, it is likely that their relatives bring women to healthcare facilities more easily [15]. Third, men (as we will see later in the chapter) have a

| Characteristics                  | Women                              | Men           |
|----------------------------------|------------------------------------|---------------|
| More common episode              | Depressive                         | Manic         |
| Onset episode                    | Depressive                         | Manic         |
| Subsyndromal depressive symptoms | More frequent                      | Less frequent |
| Age of onset                     | Older                              | Younger       |
| Mixed episodes                   | More frequent                      | Less frequent |
| Seasonal episodes                | More frequent                      | Less frequent |
| Rapid cycling                    | More frequent                      | Less frequent |
| Physical comorbidity             | More frequent (thyroid diseases)   | Less frequent |
| Psychiatric comorbidity          | Eating disorder, anxiety disorders | Drug abuse    |

**Table 31.1** Gender differences in bipolar disorder (Adapted from López-Zurbano, 2015 [4])

higher rate of substance abuse comorbidity; therefore, they can be misdiagnosed with mania. Finally, as women experience more suicide attempts and they have more mixed mania episodes, they are more usually hospitalized to prevent the risk of suicide [10].

## 31.3.1 Bipolar Depression in Women and Misdiagnosis

Gender differences in unipolar depression have been studied in detail, and, cultural studies included, the results of these investigations confirm that the risk of a major depressive episode throughout life is two times higher in women [2, 16, 17]. This same trend, with smaller differences, is also observed in bipolar disorder [9, 10]. As we have already explained, the illness in women is more usually characterized by the predominance of depression symptoms. Depressive polarity is more common at the onset of the disorder and during a lifetime [9, 13]; they have a greater number of temperaments with depressive propensities such as mood instability and cyclothymic temperament and have more depressive subsyndromal symptoms [10].

The clinical characteristics of bipolar depression in women are different from those in men with regard to both bipolar I and bipolar II disorders. They more commonly suffer from psychotic [9] and atypical symptoms (such as hypersomnia, increased appetite, or incongruent psychotic symptoms) [10, 12, 18]. This, connected with the fact that the first signs of the disorder in women are often depressive, can explain both why they are later diagnosed [9, 17] and why they take more antidepressants and benzodiazepines than men [14].

## 31.3.2 Misdiagnosis

Precise establishment of a proper diagnosis by the first manifestations of bipolar depression is one of the biggest challenges in psychiatry these days. The depressive phase of bipolar disorder is many times indistinguishable from that of unipolar depression, especially if familial and personal history is not taken into account. The misdiagnosis often leads to the prescription of only antidepressants and in high doses, as what often happens in bipolar women [17], and this causes the destabilization of the course of the disorder. This incorrect prescription can provoke switches to mania/hypomania and increases the number of episodes with occurrence of rapid cycles or the development of mixed states [19]. It is estimated that it takes about 9.6 years from the onset of symptoms to the formal diagnosis of bipolar disorder [17]. Moreover, it has been observed that this delay is longer in patients with a younger age at onset, especially when they do not show psychotic symptoms or social dysfunction during the first episode [20].

According to Hirschfeld [21], more than a third of bipolar patients seek professional help during the first year after the onset of symptoms. Unfortunately, 69% are misdiagnosed and often receive the diagnosis of unipolar depression. Those who are misdiagnosed usually consult four therapists before receiving the correct

diagnosis, and over a third of those have to wait for 10 years. This delay in the diagnosis and in the prescription of the correct treatment often brings significant psychosocial problems, such as conflicts with family and friends, professional or academic problems, and alcohol and substance abuse, with the corresponding worsening of patients' quality of life.

#### 31.3.3 Suicide Risk

Together with all this, one of the most serious consequences associated with the misdiagnosis in bipolar patients is the increased suicide risk. The risk is higher during the first 5 years after the affective symptoms emerge [22]. In fact, about 40% of bipolar patients attempt suicide at  $8.6 \pm 6.6$  years after the onset of affective symptoms. The suicide rate in the bipolar population ranges from 10 to 20% [23]. There is evidence that bipolar depressed patients attempt suicide earlier than unipolar patients during a specific episode. However, the patients with the highest risk of suicide are those experiencing mixed symptoms. This is because they combine the hopelessness of depression and the anxiety and impulsivity of mania. Some authors report that patients with bipolar II disorder make more suicide attempts than bipolar I and unipolar patients, although there is some controversy about this [23]. The clinical variables most associated with an increased risk of suicide are the presence of severe depressive episodes, drug use, family background of affective disorders, younger age at onset, and the presence of mixed symptoms. We should pay special attention if there are behavior disorders or a history of suicidal behavior comorbidity [24]. Studies show that women tend to attempt suicide more frequently and more times than men, but men's attempts are more violent (Table 31.2) [9, 10].

## 31.3.4 Rapid Cycling in Women

Rapid cycling is one of the specifiers included in the *Diagnostic and Statistical Manual of Mental Disorders*, DSM 5 [2], for bipolar disorder and related disorders. The main characteristic of rapid cycling is the occurrence of four or more mood episodes during the previous 12 months. Episodes can occur in any

|                                | ` 1 3         | 1 - , , ,         |
|--------------------------------|---------------|-------------------|
| Risk factors                   | Suicidal acts | Suicidal ideation |
| More mixed episodes            |               | V                 |
| Female sex                     |               |                   |
| Predominantly depressed        | V             | V                 |
| Latency to bipolar diagnosis   | V             |                   |
| Melancholic at any time        |               |                   |
| Hospitalization for depression |               |                   |

**Table 31.2** Factors associated with suicidal risks (*Adapted from López-Zurbano, 2015* [4]

combination and order. They have to meet the diagnostic criteria (symptoms and duration) for a major depressive, manic or hypomanic episode, and can be delimited by a remission or by a change in polarity. The only exception in a rapid cycling bipolar disorder is that episodes occur more often than in a nonrapid cycling pattern. It appears that rapid cycling is a temporary evolution form in bipolar disorder; it occurs temporarily.

Typically, rapid cycling and mood fluctuation have been associated with the female gender, but there has always been controversy about this. Early in the prepharmacological age, Falret (1794–1870) referred to the higher prevalence of women in hospitalized patients with a diagnosis of circular insanity. However, Perris [25] pointed out that it was understandable why there was a larger proportion of women in hospitals, explaining that for families it was easier to take care of a sick man than a sick woman.

A meta-analysis of published studies about rapid cycling in the 1990s showed that the proportion of women included in the study reached 74%; thus, the female/male ratio was 3:1. They established that the risk of developing rapid cycling in women was 29.6% compared with 15.5% in men. To Coryell [26], female gender is a strong predictor for rapid cycling. Different explanations have been proposed [27], including hypothyroidism, the effect of gonadal steroids, and antidepressant use. Hypothyroidism is common in bipolar patients, as it is a common secondary effect of lithium salts [10]. Thyroid abnormalities are more common in women in the general population, which may also explain the differences in the bipolar population.

Women's hormonal fluctuation throughout the reproductive cycle has been suggested to be an etiological factor of mood dysregulation in women [16]. Rasgon's group [27, 28] showed that a majority of bipolar women have a significant mood change during at least one menstrual cycle and that women receiving oral contraception had fewer symptoms of depression. However, more studies need to be carried out, because short cycles also occur in postmenopausal women when there is not a hormonal explanation.

What seems clear is that some rapid cycling is iatrogenic. We know that women take more antidepressive and sedative/hypnotic treatments than men [14] and that they appear to be more sensitive to polypharmacy. Thus, this could be one reason for the higher prevalence of rapid cycling in women. In a study by Altshuler [29], of the nine patients referred as suffering from rapid cycling due to antidepressants, eight were women.

However, the higher prevalence of rapid cycling in women still remains unclear. Some current studies confirm this [13, 27, 28], but others do not [10, 30]. Nevertheless, according to an international general population study, rapid cycling is associated with more severe depressive symptoms, greater impairment from depressive symptoms, and more anxiety disorders [30], which are linked to female gender. Thus, it is likely that in the bipolar population, especially during the first phases of the disease, when misdiagnosis is so frequent, women receive more anti-depressants with the corresponding risk of developing rapid cycling.

#### 31.3.5 Mania in Women

We have already mentioned that men tend to have a more hypomanic temperament and (hypo)manic polarity when suffering from bipolar disorder and that the onset usually occurs with a manic episode. Nevertheless, women also experience manic episodes, and differences can be observed between genders.

Women tend to achieve higher severity scores on scales (e.g., the Young Mania Rating Scale [YMRS]), which is due to the higher prevalence of psychotic symptoms in these patients [15, 31]. Psychotic features tend to be incongruent in women [10], with more overall delusions and more paranoid and reference delusions. They also experience more hallucinations per patient.

As women's polarity is often depressive, they usually experience more depressive symptoms: mood lability, depressed mood, greater guilt, and higher suicide and anxiety scores, even in mania episodes. This leads to the fact that women experience more mixed manias [10, 15, 31]. Some theories explain that they can be mediated by the predominance of anxiety symptoms in the female sex. Men, on the other hand, experience higher motor activity, grandiosity, and contact [15]. They are more likely to report "behavioral problems" and "being unable to hold a conversation" [12].

## 31.3.6 Cyclothymic Disorder

In general population, cyclothymic disorder is equally frequent in men and women. In clinical samples, it is more likely that women seek for treatment than men [2].

#### 31.3.7 Comorbid Conditions

In psychiatric comorbidity, women tend to have more comorbid eating [2, 11], anxiety, especially phobias [10, 13], and personality disorders [9]. Even though the relation between bipolar disorder and anxiety is particularly complex (one leads to the other and vice versa), some studies on this particular subject have been carried out [14]. As anxiety disorders are more common in women in the general population, the same is expected to happen in the bipolar population, which is confirmed in most studies. Bipolar women suffer more frequently than men from panic disorder, obsessive—compulsive disorder, and specific phobia [14]. Bipolar women suffering from panic disorder spend fewer years at school and are more frequently treated with antidepressants [14]. Some studies show that panic disorder and obsessive—compulsive disorder aggregate in families; thus, it is possible that women with familial bipolar disorder might be more likely to experience comorbid anxiety disorders.

It is also known that even social phobias are equally prevalent among female and male populations; women suffering bipolar disorder and social phobia are four times more prone to have comorbid alcohol abuse [14]. Comorbid drug abuse is

more common in men with bipolar disorder (alcohol, cocaine, cannabis) [10, 12, 14], and other studies also find pathological gambling and conduct disorder [10]. However, bipolar women are in higher risk than men to experience an alcohol use disorder and have greater probability of suffering from alcohol use disorder than general population women [2].

Patients with bipolar disorder have a greater comorbidity of physical pathological conditions, as the disease and its treatment increase the risk of cardiovascular, metabolic, and endocrine diseases [7]. Women suffer higher comorbidity of thyroid disease, obesity, or being overweight [10]. Lifetime prevalence of thyroid disease (excluding thyroid cancer) is four to ten times higher in women, which links with the fact that bipolar disorder treatment (lithium salts) increases the risk of thyroid diseases itself. Women with thyroid diseases and bipolar disorder are more likely to have eating disorders, which may explain the more frequent obesity among women. Bipolar men are more prone to suffer from neurological cancer disorders, which may be due to the higher comorbidity with substance abuse [10]. However, there are no gender differences in the risk of experiencing cardiovascular diseases [10].

## 31.4 Biological Marker's Differences

#### 31.4.1 Structural Abnormalities

Magnetic resonance imaging studies have reported the loss of gray matter in bipolar disorder in cingulate regions, which regulate emotions and executive functions. A small research by Delvecchio and colleagues showed that male patients had reduced left anterior cingulate cortex volumes and that the volumes of that region and the number of hospitalizations were inversely correlated. However, none of this was found in female bipolar patients. This may explain the different course of the illness in males (worse manifestations, earlier onset, and more panic episodes) [32].

## 31.4.2 Serotonin Transporter-Linked Polymorphic Region

Serotonin transporter-linked polymorphic region (5-HTTLPR) variant effects may also be influenced by gender differences. Further studies being needed, research shows that S allele (or SS genotype) seems to be associated with an increased risk of depression, depressive symptoms, anxiety, and symptoms of internalizing behavior in women. On the other hand, in men, it associates an increased risk of aggressiveness, conduct disorder, and symptoms of externalizing behavior. This association was reinforced by the presence of stressful life events [33].

These differences seemed to begin at adolescence and were not seen among the elderly, so hormonal fluctuations may play a role [33].

### 31.4.3 Estrogen

Studies on estrogen effects in central nervous system are diverse; serotonergic agonist increases the activity of noradrenaline, cholinergic agonist decreases dopamine D2 receptor [34], and GABA [35] agonist increases sensitivity to brain-derived neurotrophic factor and protein kinase C.

They have typically been related to depressive and anxiety symptoms. The association with depressive symptoms is hypothesized because there is an increased risk in the premenstrual, postpartum, and perimenopausal periods and because of its serotoninergic effect. For anxiety, it is known that all steroids, progesterone metabolites included, act as gamma aminobutyric acid A (GABA-A)/benzodiazepine receptor agonists, whose activation has an anxiolytic effect, and they upregulate the GABA-A/benzodiazepine receptors. Thus, it is likely that the cyclic withdrawal of estrogens and progestins induces an anxiolysis withdrawal, provoking anxiety states in women [15, 34].

Estrogen has also been related to PTSD or psychotic episodes [35].

So more studies are needed to certify the effects of this important hormone in affective disorders.

## 31.5 Treatment of Bipolar Disorder

Medication for the treatment of bipolar disorder includes lithium, anticonvulsants, and atypical antipsychotics, which are used both for acute episodes and for long-term maintenance treatment. These drugs are often combined with benzodiazepines when there are coexisting symptoms of anxiety or insomnia or antidepressants when there is depression.

The treatment of bipolar disorder is complex and must be individualized for each patient. This gets even more difficult when the patient is a woman, because there is always the possibility of a pregnancy. The drugs mentioned above all interact with oral contraceptives, increase the risk of endocrine pathological conditions (hypothyroidism), and can be harmful to the fetus [36].

Treatment also includes electroconvulsive therapy (ECT) and psychotherapy. Recent studies show that, compared to men, women with bipolar disorder are more likely to receive, in bipolar disorder I, treatment with ECT, antidepressants, benzo-diazepines, psychotherapy, and neuroleptics. And if bipolar II disorder diagnosis, they receive more antidepressants, lamotrigine, benzodiazepines, and psychotherapy [8] than men.

## 31.5.1 Hospital Admission

Sometimes, when illness course is particularly severe, hospitalization may be needed. Some studies in Austria with more than 60,000 patients reveal that women have higher admission and readmission rates when suffering depressed, mixed, and

manic symptoms [37]. However, average length of inpatient treatment is shorter when depressed and manic, but not when mixed.

It is possible that the majority of readmissions are due to a relative small group of patients where females are overrepresented [37].

The explanation for this may be that women seek professional help more frequently and at earlier stages of the illness and tend to be better socially integrated than men, having greater social support when ill. It may also be because, since they experience more mixed symptoms and rapid cycling, their episodes are, indeed, more frequent.

#### 31.5.2 Treatments in Women

Medications and doses used in common clinical practice are similar for both women and men. This is because there have not been enough investigations into the different metabolic, endocrine, and social effects that treatment has in each gender; thus, clinicians tend to treat men and women the same way. Nevertheless, it is known that women suffer more strongly some of the typical secondary effects, such as hypothyroidism or weight gain (which can lead to nonadherence).

### 31.5.3 Reproductive Axis

Studies reflect that bipolar women have reproductive dysfunctions, even prior to treatment. These can aggravate with the treatment, which is confirmed by the fact that bipolar women taking medication have higher rates of long menstrual cycles [11] than non-bipolar patients. Some medications habitually used in bipolar disorder can diminish reproductive hormone blood levels and consequently alter the hypothalamic–pituitary–gonadal (HPG) axis and reproductive function [36]. They also interfere with contraceptive medications and induce other menstrual abnormalities such as polycystic ovary syndrome.

## 31.5.4 Endocrine Secondary Effects

As we have mentioned before, it is known that women, particularly those in treatment with lithium, are at a higher risk of hypothyroidism [10]. Besides, many of the psychotropic medications used in the treatment of this disorder are associated with insulin resistance, weight gain, and dyslipidemia. This can provoke a dysregulation of the neuroendocrine system in women with bipolar disorder, which can also cause nonadherence [36].

The information we have nowadays about the reproductive and metabolic function in women with bipolar disorder shows a vulnerability, increased by medication, of later-life cardiovascular disease and diabetes, among other morbidities.

### 31.5.5 Response to Medication

The response to medication may also be different, as is shown by the different prevalence of secondary effects; for example, in lithium treatment, it is more common for men to experience tremor and for women to gain weight and suffer hypothyroidism [38].

#### 31.5.6 Adherence to Treatment

Adherence to medication for the treatment of bipolar disorder has been a topic of interest in last few years as a potentially modifiable factor for improving patient outcomes. Good medication adherence is necessary to prevent recurrence of affective episodes, which are associated with cumulative increases in morbidity risks, treatment nonresponse, full syndromal recurrence, and suicide [24, 39]. Nonadherence to medication in bipolar disorder is estimated to range from 12 to 64%, and studies with longer follow-up intervals have higher rates of nonadherence [40]. Lithium, the gold standard treatment in bipolar disorder, has a high rate of discontinuation as shown in a 6-year follow-up study, where the median adherence time to treatment was only 76 days [41].

## 31.5.7 Gender Differences in Adherence to Treatment and Factors Associated with Nonadherence

Although men have been described to be less adherent than women [42], there are few specific studies on bipolar disorder patients showing gender differences in adherence to treatment. Substance abuse is associated with nonadherence, as patients use it as self-medication. Some studies find that all kinds of drug abuse lead to nonadherence [43], but others only find this link with alcohol abuse [44]. And bipolar women seem to be more at risk of developing an alcohol use disorder [2].

Another factor related to treatment nonadherence in bipolar disorder is the subjective experience of illness [45]. Some researchers have demonstrated that a good illness experience can be a primary and effective motivator for patients to keep to their treatment plan, whereas a poor subjective experience of illness often leads to lowered treatment adherence. Experience of illness is a multifactorial outcome that includes the level of social support, experience of positive or negative effects of medications, and perceived stigma. Studies have found gender differences in these factors: women are concerned about weight gain, the possible negative side effects of medication, and want more social support than men [46, 47]. Kriegshauser et al. [45] did not find any differences between men and women in self-stigmatizing attitudes, perception of stigma, and perceived weight gain. However, they did find that women had more concern than men about weight gain and perceived higher-quality relationships than men. This should be taken into account when prescribing a

treatment, as women are more likely to have the secondary effect of weight gain, and when undergoing psychotherapy, to include their social network.

## 31.6 Special Considerations During Pregnancy and the Postpartum Period

The management of bipolar disorder in women during pregnancy, childbirth, and the postpartum period needs special consideration and is currently an important source for investigation.

This is because the knowledge about morbidity risks and the optimal treatment is improving but still limited, which can lead to significant consequences both for the patient and for the fetus/newborn.

For hundreds of years, the strong association between psychotic and major affective episodes in the puerperal period has been known [48]. Epidemiological studies show contradictory results about pregnancy being a risk or a protective factor for affective illness [49]. What evidence reveals is the importance of maintaining the mood stabilizer during pregnancy, because the discontinuation of maintenance treatment, especially if it is abrupt, increases the risk of early depressive or mixed states [50]. In case of wanting to avoid the fetus exposition to psychotropic drugs, the mood stabilizers should be reestablished immediately after birth in women with history of puerperal psychosis or bipolar disorder.

The risk of a mood relapse is the same for bipolar disorders I and II [49]. The most prevalent relapse during **pregnancy** is major depression, and it seems that the highest risk is during the first trimester and that it declines in the later trimester [49]. This may be because of treatment discontinuation just before or at the beginning of pregnancy, which may contribute to those early relapses. The factors associated with affective episodes in pregnancy were younger age at onset, previous postpartum episodes, fewer years of illness, fewer children, and single status [49]. Therefore, during pregnancy, there is a need to balance the teratogenic and adverse effects of medication against the consequences of a relapse in the mother's illness for both the mother and the child.

As a resume, the factors associated to recurrency during pregnancy may be [51]:

- Associated to the illness: BD II diagnosis, early symptomatology start, obstetric
  and gynecologic complications, perinatal beginning of BD, and medical history
  of more than one episode per year.
- Associated to the medication: Use of antidepressant, suppression of stabilizers, and antiepileptic stabilizer instead of lithium.
- Associated to pregnancy and the patient: First pregnancy, young women, no planned pregnancy.

With regard to the **postpartum** period, some studies have reported that between 20 and 30% of women with bipolar disorder have postpartum affective episodes, predominantly of the depressive type, within 1 month of childbirth [49, 52]. The

puerperium is considered to be moment of highest risk of decompensation [49, 53]. Other studies have reported that between 9 and 20% of women have hypomanic symptoms after delivery [52, 54]. Hypomanic symptoms are harder to diagnose because they may be confused with the normal joyfulness experienced by mothers after delivery.

If bipolar disorder begins in the postpartum period and with a depressive phase, misdiagnosis with unipolar disorder can be a common problem. Sharma et al. explain that more than half of the patients seen with a diagnosis of postpartum depression are later diagnosed as having bipolar disorder [52, 55]. This misdiagnosis can lead to delays in the prescription of appropriate pharmacological treatment. Moreover, unsuitable treatment with antidepressants can precipitate mania or a mixed state and, in the worst cases, psychiatric hospitalization.

We have to realize that many of the pregnancies are not planned [53], which means that many women are not aware of their pregnancy during the first trimester. Then, we need to anticipate this possibility when treating bipolar women, taking into account this possibility when prescribing or easing the prevention of it.

The pharmacological treatment should include the less damaging drugs in the case a pregnancy occurs, being it planned or not. For example, valproic acid is not to be used in girls or women with reproductive capacity [56]. Or when considering a stabilizer lithium and lamotrigine are safer than carbamazepine.

In case a pregnancy occurs, we must inform the patient (and her partner or even family, whoever is going to support the patient during pregnancy and the uprising of the baby) about the known risk of the illness in that context, treated or not. The bigger vulnerability during this period makes it compulsory to monitor more tightly the patient's evolution. This includes adding, if there wasn't before, a psychotherapeutic treatment (it will be essential if medication is suspended) and the cooperation of other professionals: nurse, social workers, etc. Both the mother's psychopathological and physical states and the fetus' physical state must be monitored throughout gestation, so psychiatric, gynecologic, obstetric, and pediatric teams could be in constant communication [51].

Ideally, a collaborative and multidisciplinary treatment approach that includes the patient's psychiatrist, obstetrician, and pediatrician is critically important.

Psychotherapeutic treatment has been considered a major option for treating bipolar patients, especially if they abandon treatment, National Institute for Health and Care Excellence (NICE) guide included [57]. However, recently NICE's conclusions in this matter have been questioned [58].

When a pregnancy occurs, we should develop (including patient's surroundings) a treatment plan. It should be written and include all the pregnancy phases and include all the possibilities (medication reduction when planning the pregnancy or immediate restoration after birth). This plan should be shared with gynecology, obstetry, and neonatology teams so that interprofessional communication is continuous, especially when childbirth arrives. This communication is needed, because bipolar maternity has been associated with neonatal hypoglycemia and malformation such as microcephalia even in not treated patients [59].

This plan should also include breastfeeding. NICE guide recommends discussing with the patient the options that allow breastfeeding if that is her wish or support women who decide not to [60].

## 31.7 Treatment During Pregnancy

Some authors recommend suspending pharmacological treatment during the first trimester of pregnancy and even during the 2–3 weeks before conception, proposing that this would avoid teratogenic effects of treatment on the fetus [62]. However, stopping the medical treatment during gestation can have deleterious effects for both mother and fetus, such as interference with activities of daily living, including taking care of a child [63], inadequate nutrition, increased alcohol or tobacco use, exposure to other medications or natural remedies (herbal, homeopathy), problems in the family environment, and deficits in mother–infant bonding [64]. Therefore, there is information about the consequences of relapses during pregnancy, but not about taking bipolar disorder medication during that period; the few studies available on this subject are limited and have reported conflicting results.

Nevertheless, there are some recommendations that should be taken into account (Table 28.3). It is important to discuss with the patient and her family the potential risks of the treatment weighed against the risks of a mood relapse (for her and for the baby), in order to decide on the best medication. Both the mother's psychopathological and physical states and the fetus' physical state must be monitored throughout gestation. The treatment should be with the minimum, but always effective, doses. We should try to avoid polytherapy, new drugs, and the use of medication during the first trimester to mitigate any teratogenic side effects.

If the pregnancy is **planned**: Patient's decision (and ideally with her partner/family) should include two kinds of information—on one hand, patient's information, her preferences, disease experiences, and treatment effects, and, on the other hand, doctor's information, which includes actual scientific data about BD and pregnancy and the knowledge about the case in particular, personal burden, family history, social context, and assistance context. The final decision will always be individualized. The first recommendation should be not to look for a pregnancy if there has not been a stability of 3 months [61, 64].

From psychopharmacological perspective, the safest option is monotherapy. The use of an antipsychotic (AP) would allow treating manic episodes by increasing the dose and, while if keeping a stabilizer, would force to add an antipsychotic or an antidepressant in case of manic or depressive episode. In this line, NICE recommends the substitution of the usual stabilizer for an antipsychotic [60]. If this happens, secondary effects in fertility (hyperpolactinemia) or in pregnancy (hyperglycemia, weight gain) of these drugs should be taken into account.

However, if the stabilizer is lithium, maintaining it can be very reasonable since it can provide clinical stability with little harm for the fetus (less than classically thought) [65].

If stabilizer is kept, preconception folic acid supplements (5 mg per day) are recommended, even if it is lithium [66].

When the pregnancy is **not planned**: The first step is to confirm the pregnancy as soon as possible, knowing that it is very likely that the organogenesis has already happened. If patient was taking carbamazepine (CBZ), substitution for an AP should be tried. And all the advices already exposed should be followed: monitoring the patient more often and taking an individual decision agreed with the patient and it's family.

Major adaptive physiologic changes occur in a woman's gastrointestinal, cardio-vascular, renal, and other systems during pregnancy. These changes greatly affect the pharmacokinetic processes of drug absorption, distribution, metabolism, and excretion. The changes begin early and continue to fluctuate throughout the third trimester, resulting in about a 50% increase in plasma volume, increased body fat, and increased drug distribution volume. These facts should be taken into account when treating a pregnant woman [67].

These patients are at higher risk of adverse birth outcomes, regardless of causation [68], so these pregnancies, labors, and postpartum should be considered as "high risk." When labor arrives, these women should give birth in a hospital that has a psychiatry service. They must be monitored by the obstetric team, especially if taking medicines, because physiological changes may lead to maternal or neonatal toxicity. Anesthesia service should be advised too, if manic or psychotic symptoms are present. Sedation should be made with antipsychotic drugs, because benzodiazepines may induce a hypotonic syndrome in the baby.

After birth psychiatric symptoms must be monitored. The recommendation is to start psychopharmacological treatment as soon as possible (when hydroelectric balance is restored), usually the mood stabilizer. However, if the risk is to develop manic symptoms, adding an antipsychotic drug should be considered.

#### 31.7.1 Mood Stabilizers

The monitoring of mood stabilizers in serum is recommendable during pregnancy, always taking into account the physiological changes that women's bodies experience during gestation, such as a bigger distribution volume, glomerular filtration alterations, or increased frequency of urination [51, 69].

Antiepileptic drugs, except for lamotrigine, are the medications that show the worst reproductive safety profile [69].

#### 31.7.1.1 Lithium

Older studies showed that patients who use lithium during pregnancy had a congenital malformation occurrence rate of 4–12%, whereas the untreated population had an estimated rate of malformation of 2–4% [70]. Relatively recent updates on the risk of fetal structural malformations associated with lithium exposure suggest that this medication is not a significant human teratogen [71]. Thus, the "historical"

fear of cardiac Ebstein's anomaly in lithium-exposed children should be reduced [69]. Lithium is associated with a higher risk of neonatal complications, such as lower Apgar scores, longer hospital stays, and central nervous system and neuro-muscular adverse reactions, which are directly related to the level of the drug in serum [69]. Other adverse effects that have been anecdotally reported are premature birth, diabetes insipidus, thyroid dysfunction, and polyhydramnios [72].

For women with severe bipolar disorder, the risk of recurrence during pregnancy may overshadow the relatively small risk of Ebstein's anomaly. For such women, maintenance lithium therapy during pregnancy may be the most appropriate course. By contrast, for women with periods of euthymia and few past mood episodes, slow tapering of lithium (minimum of 4 weeks) and reintroduction after the first trimester may help reduce the risk of relapse during the postpartum period [65].

It is recommended that echographic and echocardiographic studies are made at 16 weeks of pregnancy and echocardiographic checkups at 18–23 weeks [51].

Lithium levels should be followed closely during pregnancy, and the dose should be held or reduced with the initiation of labor. Hydration during delivery should be adequate and the dosage reduced to prepregnancy levels (if it was increased during pregnancy), with close monitoring of serum levels due to the high risk of relapse at that moment [65].

Child's lithium levels should be monitored so as thyroid hepatic and renal functions. Studies do not show cognitive impairment in children of bipolar mothers treated with lithium during pregnancy [67, 73].

#### 31.7.1.2 Valproate

Observational studies have reported that valproate has a higher teratogenic risk than other antiepileptic drug. And this risk is dose dependent; it's highest malformative risk is about 25.2% at doses higher than 1450 mg/day, being it lower at doses smaller than 650 mg/day [73].

The risk of fetal malformations caused by valproate prenatal exposition is about 11%, and it includes epicanthic folds, medial eyebrow deficiency, a long thin upper lip, a thick lower lip, cardiac malformations, hypospadias, an infraorbital groove, a flat nasal bridge, a short nose with anteverted nares, a small downturned mouth, and spina bifida [65]. The risk of valproate-induced birth defects seems to rise when it is combined with other drugs, especially with lamotrigine or carbamazepine [74].

Recent studies have also linked valproate intrautero exposition to postnatal cognitive development, with a 30–40% reported risk of neurodevelopmental disorders as studies show, among other alterations (lower performances in primary and secondary school [75] and autism spectrum disorders [73] three and five times higher than in the general population) [76].

The recommendation has typically been to, in those women who want to keep the anticonvulsant, add high dose of folate (4 mg/day), which theoretically reduces the risk of neural tube defect. However, folate effect is in doubt after recent findings [73]. Recommendations have also included to undergo a second trimester ultrasound to screen for major congenital anomalies and a monitoring of blood levels of valproic acid [65].

After all the information around the effects of valproate on the fetus was known, many voices raised against its use in young women, pregnant [77] or not [56]. And

the US Food and Drug Administration [78] and the European Medicines Agency issued restrictions on the use of valproate in women of childbearing age and, in the case of the European Medicines Agency, also in girls. In April 2018, the European Medicines Agency's experts in medicines safety, the Pharmacovigilance Risk Assessment Committee (PRAC), recommended new measures to avoid exposure of babies to valproate medicines in the womb. In the case of bipolar disorder, it includes not to use valproate during pregnancy or in female patients able to have children if they don't prevent pregnancy [79].

This warning has been included also in NICE guide, which describes "Do not offer valproate for acute or long-term treatment of a mental health problem in women of childbearing potential. Valproate treatment must not be used in girls and women including in young girls below the age of puberty, unless alternative treatments are not suitable and unless the conditions of the pregnancy prevention programme are met. Valproate must not be used in pregnant women" [80].

#### 31.7.1.3 Carbamazepine

Carbamazepine's teratogenicity is discussed; some studies don't associate it with higher malformation rates [51], but some others do [73]. Carbamazepine-induced malformations are dose dependent [73] and rise when combined with valproic acid [74]. These include epicanthic folds, an orofacial cleft, cardiac malformations, a short nose with hypoplastic nares, a long philtrum, upward slanting palpebral fissures, and spina bifida [58].

Carbamazepine is an enzymatic inductor, which must be taken into account. It is also a competitive inhibitor of prothrombin precursors, which may also increase the risk of neonatal hemorrhage. In this case vitamin K may be added to treatment [51].

The recommendation for carbamazepine treatment includes high-dose folate and screening for malformations and therapeutic blood monitoring [65].

## 31.7.1.4 Lamotrigine

Lamotrigine is the antiepileptic that we have more experience of during pregnancy. Several studies have been carried out to measure the risks of lamotrigine in pregnancy. Last information seems to certify that it is not associated with higher malformation risks [81] if dose is kept under 325 mg/day [73].

The problem here arrives because lamotrigine is not properly a stabilizer; it is not approved by FDA for that purpose. It should be useful when a depressive relapse happens at the end of the pregnancy or if lithium is suspended [51].

## 31.7.2 Antipsychotics

Recent studies about congenital malformations in women exposed in first trimester to first-generation and second-generation antipsychotics conclude that there is no higher general risk for congenital malformations, particularly for cardiovascular malformations. They do find a little increase with risperidone exposition, even though more studies are required to affirm it [82].

Intrauterine antipsychotic exposition, whether it is first or second generation, is not associated with future cognitive or behavioral functioning abnormalities [65].

What evidence shows is that not using antipsychotics when indicated for serious mental illness poses a much greater risk than prescribing them [65]. However, it seems that pregnant women who require antipsychotic treatment are at higher risk of adverse birth outcomes, regardless of causation, and may benefit from close monitoring and minimization of other potential risk factors during pregnancy [68].

First-generation antipsychotics don't appear to have significant teratogenic effects. Exposure in the third trimester has been associated with extrapyramidal and withdrawal symptoms in the newborn (motor restlessness, hypertonia, or tremor) [65]. This is why FDA issued a drug safety in 2011 for all antipsychotics [83].

Second-generation antipsychotics don't seem to be safer to use in pregnancy, according to evidence. They appear to increase the risk of excessive maternal weight gain, gestational metabolic complications, and increased infant birth weight [84].

Olanzapine and clozapine should be considered as drugs associated with an increase in the risk of metabolic complications in pregnancy (prevalently gestational diabetes) [84].

Clozapine is commonly used during pregnancy, because different studies show a low risk of complications or congenital anomalies [85]. There are anecdotal reports of neonatal convulsions, floppy baby, and gestational diabetes, although the cause–effect relation is doubtful [51].

## 31.7.3 Antidepressants

Exposition to antidepressants during pregnancy has been associated with several risks. We are going to describe them one by one:

#### 31.7.3.1 Teratogenesis

After the GlaxoSmithKline pregnancy registry showed an increased risk of cardio-vascular malformations in 2005, there is a general warning about SSRI (specifically paroxetine). However, the rate of major birth defects in the general population is about 3%, which means that even if antidepressants increase it, in absolute terms the risk would still be very small. In addition, the literature on this subject is complicated by studies' characteristics: small samples, surveillance bias, lack of controls, etc. So, nowadays, the general consensus is that the risk of malformations, if it exists, is small for antidepressants in monotherapy [86].

About cardiovascular malformations, paroxetine seems to be associated with a small risk for general and cardiac malformations (septals specifically) and fluoxetine with cardiac malformations [67].

Studies about bupropion have conflicting results [61, 65]. Other antidepressants (venlafaxine, duloxetine, and mirtazapine) have not being associated with malformations [61, 69].

#### 31.7.3.2 Spontaneous Abortion

Bibliography shows a higher rate of spontaneous abortion when using SSRI or tricyclic antidepressants [65]. However, untreated depressed women who also have higher abortion rates are also higher.

#### 31.7.3.3 Preterm Birth and Birth Weight

Antidepressants have classically being associated with a higher preterm birth and lower birth weight. With the latest studies, this information is in doubt [65, 67, 87, 88].

## 31.7.3.4 Poor Neonatal Adaptation Syndrome (PNAS)

It is still in doubt if it is due to withdrawal symptoms or drug toxicity due to SSRI and SNRI (serotonin–norepinephrine reuptake inhibitor). Even if the definition is not very clear yet, this syndrome has been associated with respiratory distress, cyanosis, apnea, seizures, feeding difficulty, vomiting, temperature instability, hypoglycemia, hypotonia or hypertonia, tremor, jitteriness, hyperreflexia, irritability, and constant crying.

Even 30% of the children exposed to SSRI or SNRI during third trimester of pregnancy suffer part of the described symptoms. It is usually mild, temporary, and not associated with lasting effects [61, 65, 67].

## 31.7.3.5 Persistent Pulmonary Hypertension of the Newborn (PPHN)

The resistance of the pulmonary vasculature fails to decrease at birth, causing breathing difficulties that may lead to hypoxia. It has been associated with several factors, including exposition to SSRI before 20th week of pregnancy [89]. However, more recent studies have not confirmed this association.

#### 31.7.3.6 Postnatal Effects in Development

This subject has been poorly studied, but latest studies on the subject show that autism in the offspring may be associated with depression disorder on the mother more than with the treatment [87, 90, 91].

Attention-deficit/hyperactivity disorder has not been associated with the use of antidepressants during pregnancy [87].

## 31.7.4 Benzodiazepines

Benzodiazepines (BZD) are the most used drugs for treating anxiety and insomnia symptoms and are also used as coadjuvants for mood disorders, agitation episodes, hyperemesis gravidarum, and eclampsia and in cases of risk of premature labor.

There is no evidence of major or cardiac malformations if using BZD during pregnancy; there is an association with minor malformations: cleft lip or cleft palate. This advises against the use of BZD during the first 12 weeks of pregnancy. In case of them being needed, low doses are recommended [51, 67].

Children exposed to high doses of short half-life benzodiazepines at the end of the pregnancy are associated with withdrawal syndrome that includes hypertonia, hyperreflexia, tremor, diarrhea, vomits, or apnea [67].

Another effect associated with high doses of BZD before childbirth is the hypotonic infant syndrome (floppy syndrome) whose symptoms are hypotonia, respiratory difficulties, hypoxia, and feeding difficulties. This appears just after childbirth also and may last for hours or days [67].

Studies do not show long-term effects in children development [67].

The general recommendation would be to use short half-life BZD, such as lorazepam. Lorazepam also shows lower placentary transference (being diazepam the one with the highest). In the case of needing a long half-life BZD, diazepam, chlordiazepoxide, and clonazepam are recommended. Flurazepam, quazepam, and triazolam should be avoided.

Use the minimum dose, divided along the day [67, 92].

High doses (equivalent or higher than 30 mg/day of diazepam) should be avoided.

For the first trimester of pregnancy, BZDs should be avoided; if needed lorazepam and clonazepam seem to be the current recommendation. Always use the minimum dose possible.

In the second trimester, they may be used. Lorazepam and clonazepam are still the recommendation.

And for the third trimester, BZDs should be progressively retired 2 weeks before the labor day. Lorazepam is the latest recommendation, but take into account that its neonatal elimination is slow and may be detected in children's blood even 8 days after delivery [51, 67, 92].

## 31.7.5 Electroconvulsive Therapy

Electroconvulsive therapy (ECT) is often the treatment of choice for depression during pregnancy as it is recommended by the American Psychiatric Association Task Force on ECT [93]. It has been reported to be a safe and effective option in pregnant women [93]. The few studies that describe ECT in pregnant women report secondary effects of vaginal bleeding and premature uterine contractions, although child development after delivery was normal. It is essential to have proper coordination with obstetric and anesthetic services. Anesthetics used during ECT cross the placenta and fetal blood—brain barrier, but they are not a serious threat owing to the brevity of exposure.

According to NICE guide, ECT should be considered for pregnant women with severe depression, severe mixed affective states or mania, or catatonia, whose physical health or that of the fetus is at serious risk [2014].

## 31.8 Treatment During Breastfeeding

During the postpartum period, medication is needed in bipolar women because they are at an increased risk of affective episodes, which, if severe, can unusually lead to

suicide or infanticide [94]. In lactation, the aim of the treatment is to minimize infant exposure and adverse effects while maintaining optimal maternal mental health. The mood stabilizers valproate and carbamazepine are considered suitable during lactation, whereas lamotrigine should be used with caution, and lithium use is not recommended [51, 72]. There are no solid determinations about the risks or benefits of most antipsychotic drugs in breastfeeding, but clozapine and olanzapine should be considered contraindicated during breastfeeding, although further long-term data studies are required [51]. Electroconvulsive therapy can be used safely during breastfeeding if care is taken not to breastfeed the child too soon after the session so that the anesthetics, muscle relaxants, and anticholinergics are not ingested by the infant.

#### 31.9 Discussion

There is a predominance of depression in women: the polarity at onset and through lifetime is depressive. They spend more time in a depressed phase and have more depression symptoms during manic phases; thus, they are more likely to experience mixed mania. Women have a higher probability of experiencing mood instability, seasonal episodes, and rapid cycling. They experience more suicidal ideation and more suicide attempts (whereas men make fewer attempts, but they are more violent). Depressed bipolar women more commonly suffer from psychotic and atypical symptoms (such as hypersomnia, increased appetite, or incongruent psychotic symptoms). Women are more likely to be misdiagnosed with unipolar depression, and they take more antidepressants and benzodiazepines than men. As women's polarity is often depressive, they usually experience more depressive symptoms, mood lability, depressed mood, greater guilt, and suicide and anxiety scores, even in mania episodes. Thus, women experience more mixed manias. When manic, psychotic features tend to be incongruent, with more overall delusions and more paranoid and reference delusions. They also experience more hallucinations per patient. Women tend to have more comorbid eating, anxiety, especially phobias, and axis II disorders. They suffer more frequently than men from panic disorder, obsessive-compulsive disorder, and specific phobias. Even social phobia is equally prevalent among female and male populations; women suffering from bipolar disorder and social phobia are four times more prone to having comorbid alcohol abuse. The female gender suffers a higher comorbidity of thyroid disease, obesity, or being overweight.

Women are considered to be more adherent to treatment, but they are concerned about weight gain and the possible negative side effects of medication and want more social support than men. Pregnancy and especially the postpartum period are risk factors for mood disorder relapse, and depressive relapses are more frequent. It is contraindicated to stop treatment abruptly if pregnant, so there should be a balance between treatment-provoked risk factors against the deleterious effects of an affective relapse. In conclusion, there is a requirement for more research on gender differences in bipolar disorder. Moreover, a better understanding of treatment in women with bipolar disorder during pregnancy and lactation is needed to improve outcomes for both the mother and her child.

### References

- 1. Merikangas KR, Jin R, He J-P, Kessler RC, Lee S, Sampson NA, et al. Prevalence and correlates of bipolar spectrum disorder in the world mental health survey initiative. Arch Gen Psychiatry. 2011;68(3):241–51.
- 2. American Psychiatric Association. Diagnostic and statistical manual of mental disorders (DSM-5®). American Psychiatric Pub; 2013.
- 3. Gonzalez-Pinto A, Gutierrez M, Mosquera F, Ballesteros J, Lopez P, Ezcurra J, et al. First episode in bipolar disorder: misdiagnosis and psychotic symptoms. J Affect Disord. 1998;50(1):41–4.
- López-Zurbano S, González-Pinto A, López P. Gender differences in bipolar disorder. In: Psychopathology in women. Cham: Springer; 2015. p. 641–59.
- Hendrick V, Altshuler LL, Gitlin MJ, Delrahim S, Hammen C. Gender and bipolar illness. J Clin Psychiatry. 2000;61(5):393–6.. quiz 397
- Popovic D, Torrent C, Goikolea JM, Cruz N, Sánchez-Moreno J, González-Pinto A, et al. Clinical implications of predominant polarity and the polarity index in bipolar disorder: a naturalistic study. Acta Psychiatr Scand. 2014;129(5):366–74.
- Ketter TA. Diagnostic features, prevalence, and impact of bipolar disorder. J Clin Psychiatry. 2010;71(6):e14.
- 8. Karanti A, Bobeck C, Osterman M, Kardell M, Tidemalm D, Runeson B, et al. Gender differences in the treatment of patients with bipolar disorder: a study of 7354 patients. J Affect Disord. 2015;174:303–9.
- Nivoli AMA, Pacchiarotti I, Rosa AR, Popovic D, Murru A, Valenti M, et al. Gender differences in a cohort study of 604 bipolar patients: the role of predominant polarity. J Affect Disord. 2011;133(3):443–9.
- Azorin J-M, Belzeaux R, Kaladjian A, Adida M, Hantouche E, Lancrenon S, et al. Risks associated with gender differences in bipolar I disorder. J Affect Disord. 2013;151(3):1033

  –40.
- 11. Rasgon N, Bauer M, Glenn T, Elman S, Whybrow PC. Menstrual cycle related mood changes in women with bipolar disorder. Bipolar Disord. 2003;5(1):48–52.
- 12. Kawa I, Carter JD, Joyce PR, Doughty CJ, Frampton CM, Wells JE, et al. Gender differences in bipolar disorder: age of onset, course, comorbidity, and symptom presentation. Bipolar Disord. 2005;7(2):119–25.
- Altshuler LL, Kupka RW, Hellemann G, Frye MA, Sugar CA, McElroy SL, et al. Gender and depressive symptoms in 711 patients with bipolar disorder evaluated prospectively in the Stanley Foundation bipolar treatment outcome network. Am J Psychiatry. 2010;167(6):708–15.
- Saunders EFH, Fitzgerald KD, Zhang P, McInnis MG. Clinical features of bipolar disorder comorbid with anxiety disorders differ between men and women. Depress Anxiety. 2012;29(8):739–46.
- 15. Bhattacharya A, Khess CRJ, Munda SK, Bakhla AK, Praharaj SK, Kumar M. Sex difference in symptomatology of manic episode. Compr Psychiatry. 2011;52(3):288–92.
- Freeman MP, Smith KW, Freeman SA, McElroy SL, Kmetz GE, Wright R, et al. The impact of reproductive events on the course of bipolar disorder in women. J Clin Psychiatry. 2002;63(4):284–7.
- 17. Drancourt N, Etain B, Lajnef M, Henry C, Raust A, Cochet B, et al. Duration of untreated bipolar disorder: missed opportunities on the long road to optimal treatment. Acta Psychiatr Scand. 2013;127(2):136–44.
- 18. Benazzi F. Gender differences in bipolar II and unipolar depressed outpatients: a 557-case study. Ann Clin Psychiatry Off J Am Acad Clin Psychiatr. 1999;11(2):55–9.
- 19. Hirschfeld RMA, Vornik LA. Recognition and diagnosis of bipolar disorder. J Clin Psychiatry. 2004;65(Suppl 15):5–9.
- 20. Goldberg JF, Ernst CL. Features associated with the delayed initiation of mood stabilizers at illness onset in bipolar disorder. J Clin Psychiatry. 2002;63(11):985–91.
- 21. Hirschfeld RMA, Lewis L, Vornik LA. Perceptions and impact of bipolar disorder: how far have we really come? Results of the national depressive and manic-depressive association 2000 survey of individuals with bipolar disorder. J Clin Psychiatry. 2003;64(2):161–74.

- 22. González-Pinto A, Aldama A, González C, Mosquera F, Arrasate M, Vieta E. Predictors of suicide in first-episode affective and nonaffective psychotic inpatients: five-year follow-up of patients from a catchment area in Vitoria. Spain J Clin Psychiatry. 2007;68(2):242–7.
- Undurraga J, Baldessarini RJ, Valenti M, Pacchiarotti I, Vieta E. Suicidal risk factors in bipolar I and II disorder patients. J Clin Psychiatry. 2012;73(6):778–82.
- 24. López P, Mosquera F, de León J, Gutiérrez M, Ezcurra J, Ramírez F, et al. Suicide attempts in bipolar patients. J Clin Psychiatry. 2001;62(12):963–6.
- 25. Perris C. A study of bipolar (manic-depressive) and unipolar recurrent depressive psychoses. Introduction Acta Psychiatr Scand Suppl. 1966;194:9–14.
- 26. Coryell W, Endicott J, Keller M. Rapidly cycling affective disorder. Demographics, diagnosis, family history, and course. Arch Gen Psychiatry. 1992;49(2):126–31.
- 27. Rasgon N, Bauer M, Grof P, Gyulai L, Elman S, Glenn T, et al. Sex-specific self-reported mood changes by patients with bipolar disorder. J Psychiatr Res. 2005;39(1):77–83.
- 28. Burt VK, Rasgon N. Special considerations in treating bipolar disorder in women. Bipolar Disord. 2004;6(1):2–13.
- Altshuler LL, Post RM, Leverich GS, Mikalauskas K, Rosoff A, Ackerman L. Antidepressantinduced mania and cycle acceleration: a controversy revisited. Am J Psychiatry. 1995;152(8):1130–8.
- 30. Lee S, Tsang A, Kessler RC, Jin R, Sampson N, Andrade L, et al. Rapid-cycling bipolar disorder: cross-national community study. Br J Psychiatry J Ment Sci. 2010;196(3):217–25.
- 31. Bräunig P, Sarkar R, Effenberger S, Schoofs N, Krüger S. Gender differences in psychotic bipolar mania. Gend Med. 2009;6(2):356–61.
- Delvecchio G, Ciappolino V, Perlini C, Barillari M, Ruggeri M, Altamura AC, et al. Correction to: cingulate abnormalities in bipolar disorder relate to gender and outcome: a region-based morphometry study. Eur Arch Psychiatry Clin Neurosci. 2018; https://doi.org/10.1007/s00406-018-0913-3
- 33. Gressier F, Calati R, Serretti A. 5-HTTLPR and gender differences in affective disorders: a systematic review. J Affect Disord. 2016;190:193–207.
- 34. De Almeida IB, Nardi AE, De Ornelas Maia AC, Levitan M. Estrogen and transdiagnostics: a systematic review. J Depress Anxiety. 2016;5(228):2167–1044.
- 35. Meinhard N, Kessing LV, Vinberg M. The role of estrogen in bipolar disorder, a review. Nord J Psychiatry febrero de. 2014;68(2):81–7.
- 36. Kenna HA, Jiang B, Rasgon NL. Reproductive and metabolic abnormalities associated with bipolar disorder and its treatment. Harv Rev Psychiatry. 2009;17(2):138–46.
- 37. Fellinger M, Waldhör T, Blüml V, Williams N, Vyssoki B. Influence of gender on inpatient treatment for bipolar disorder: an analysis of 60,607 hospitalisations. J Affect Disord. 2018;225:104–7.
- 38. Henry C. Lithium side-effects and predictors of hypothyroidism in patients with bipolar disorder: sex differences. J Psychiatry Neurosci JPN. 2002;27(2):104–7.
- 39. Gonzalez-Pinto A, Mosquera F, Alonso M, López P, Ramírez F, Vieta E, et al. Suicidal risk in bipolar I disorder patients and adherence to long-term lithium treatment. Bipolar Disord. 2006;8(5 Pt 2):618–24.
- Colom F, Vieta E, Martínez-Arán A, Reinares M, Benabarre A, Gastó C. Clinical factors associated with treatment noncompliance in euthymic bipolar patients. J Clin Psychiatry. 2000;61(8):549–55.
- 41. Johnson RE, McFarland BH. Lithium use and discontinuation in a health maintenance organization. Am J Psychiatry. 1996;153(8):993–1000.
- 42. Vega P, Hernández M, Martinez-Cengotitabengoa M, Gonzalez I. Why do bipolar men not comply with treatment? Int Clin Psychopharmacol. 2011;26(39):63–9.
- 43. Lang K, Korn J, Muser E, Choi JC, Abouzaid S, Menzin J. Predictors of medication nonadherence and hospitalization in Medicaid patients with bipolar I disorder given long-acting or oral antipsychotics. J Med Econ. 2011;14(2):217–26.
- 44. Baldessarini RJ, Perry R, Pike J. Factors associated with treatment nonadherence among US bipolar disorder patients. Hum Psychopharmacol. 2008;23(2):95–105.
- Kriegshauser K, Sajatovic M, Jenkins JH, Cassidy KA, Muzina D, Fattal O, et al. Gender differences in subjective experience and treatment of bipolar disorder. J Nerv Ment Dis. 2010;198(5):370–2.

- 46. Leskelä U, Melartin T, Rytsälä H, Jylhä P, Sokero P, Lestelä-Mielonen P, et al. Influence of personality on objective and subjective social support among patients with major depressive disorder: a prospective study. J Nerv Ment Dis. 2009;197(10):728–35.
- 47. Franzoi SL, Koehler V. Age and gender differences in body attitudes: a comparison of young and elderly adults. Int J Aging Hum Dev. 1998;47(1):1–10.
- 48. Trede K, Baldessarini RJ, Viguera AC, Bottero A. Treatise on insanity in pregnant, postpartum, and lactating women (1858) by Louis-Victor Marcé: a commentary. Harv Rev Psychiatry. 2009;17(2):157–65.
- Viguera AC, Tondo L, Koukopoulos AE, Reginaldi D, Lepri B, Baldessarini RJ. Episodes of mood disorders in 2252 pregnancies and postpartum periods. Am J Psychiatry. 2011;168(11):1179–85.
- 50. Viguera AC, Whitfield T, Baldessarini RJ, Newport DJ, Stowe Z, Reminick A, et al. Risk of recurrence in women with bipolar disorder during pregnancy: prospective study of mood stabilizer discontinuation. Am J Psychiatry. 2007;164(12):1817–24; quiz 1923
- 51. Mateo MJZ, Albéniz JM, Yañez LP. uso de psicofarmacos durante el embarazo y la lactancia. 2nd ed. Osakidetza: Vitoria-Gasteiz (Álava); 2016.
- 52. Sharma V, Burt VK, Ritchie HL. Bipolar II postpartum depression: Detection, diagnosis, and treatment. Am J Psychiatry. 2009;166(11):1217–21.
- Jones I, Chandra PS, Dazzan P, Howard LM. Bipolar disorder, affective psychosis, and schizophrenia in pregnancy and the post-partum period. Lancet Lond Engl. 2014;384(9956):1789–99.
- 54. Heron J, Haque S, Oyebode F, Craddock N, Jones I. A longitudinal study of hypomania and depression symptoms in pregnancy and the postpartum period. Bipolar Disord. 2009;11(4):410–7.
- 55. Sharma V, Khan M, Corpse C, Sharma P. Missed bipolarity and psychiatric comorbidity in women with postpartum depression. Bipolar Disord. 2008;10(6):742–7.
- Angus-Leppan H, Liu RSN. Weighing the risks of valproate in women who could become pregnant. BMJ. 2018;361:k1596.
- 57. National Institute for Health and Care Excellence. NICE. Bipolar disorder: assessment and management. 2014.
- 58. Jauhar S, McKenna PJ, Laws KR. NICE guidance on psychological treatments for bipolar disorder: searching for the evidence. Lancet Psychiatry. 2016;3(4):386–8.
- 59. Bodén R, Lundgren M, Brandt L, Reutfors J, Andersen M, Kieler H. Risks of adverse pregnancy and birth outcomes in women treated or not treated with mood stabilisers for bipolar disorder: population based cohort study. BMJ. 2012;345:e7085.
- 60. National Institute for Health and Care Excellence. NICE. Antenatal and postnatal mental health: clinical management and service guidance. In: NICE. 2014.
- 61. Payne JL, Meltzer-Brody S. Antidepressant use during pregnancy: current controversies and treatment strategies. Clin Obstet Gynecol. 2009;52(3):469–82.
- 62. Álamo C, Alonso Z, Alvarez I. In: salazar M, Peral C, Pastor FJ, editors. Manejo de psicofármacos en situaciones vitales específicas. Manual de Psicofármacología. Madrid: Editoral Médica Panamericana; 2011. p. 87–92.
- 63. Einarson A, Boskovic R. Use and safety of antipsychotic drugs during pregnancy. J Psychiatr Pract. 2009;15(3):183–92.
- 64. ACOG Committee on Practice Bulletins—Obstetrics. ACOG Practice Bulletin: Clinical management guidelines for obstetrician-gynecologists number 92, April 2008 (replaces practice bulletin number 87, November 2007). Use of psychiatric medications during pregnancy and lactation. Obstet Gynecol. 2008;111(4):1001–20.
- 65. Chisolm MS, Payne JL. Management of psychotropic drugs during pregnancy. BMJ. 2016;532:h5918.
- 66. Gentile S. Lithium in pregnancy: the need to treat, the duty to ensure safety. Expert Opin Drug Saf. 2012;11(3):425–37.
- 67. arcía-Esteve LL (último), Valdés Miyar. Manual de Psiquiatría perinatal. Guía para el manejo de los trastornos mentales durante el embarazo, posparto y lactancia. Madrid: Médica Panamerican; 2016.

- 68. Coughlin CG, Blackwell KA, Bartley C, Hay M, Yonkers KA, Bloch MH. Obstetric and neonatal outcomes after antipsychotic medication exposure in pregnancy. Obstet Gynecol. 2015;125(5):1224–35.
- 69. Gentile S. Drug treatment for mood disorders in pregnancy. Curr Opin Psychiatry. 2011;24(1):34–40.
- 70. Cohen LS, Friedman JM, Jefferson JW, Johnson EM, Weiner ML. A reevaluation of risk of in utero exposure to lithium. JAMA. 1994;271(2):146–50.
- 71. McKnight RF, Adida M, Budge K, Stockton S, Goodwin GM, Geddes JR. Lithium toxicity profile: a systematic review and meta-analysis. Lancet Lond Engl. 2012;379(9817):721–8.
- 72. Gentile S. Prophylactic treatment of bipolar disorder in pregnancy and breastfeeding: focus on emerging mood stabilizers. Bipolar Disord. 2006;8(3):207–20.
- 73. Tomson T, Battino D, Bonizzoni E, Craig J, Lindhout D, Perucca E, et al. Comparative risk of major congenital malformations with eight different antiepileptic drugs: a prospective cohort study of the EURAP registry. Lancet Neurol. 2018;17(6):530–8.
- 74. Holmes LB, Mittendorf R, Shen A, Smith CR, Hernandez-Diaz S. Fetal effects of anti-convulsant polytherapies: different risks from different drug combinations. Arch Neurol. 2011;68(10):1275–81.
- 75. Elkjær LS, Bech BH, Sun Y, Laursen TM, Christensen J. Association between prenatal valproate exposure and performance on standardized language and mathematics tests in school-aged children. JAMA Neurol. 2018;75(6):663–71.
- 76. Kälviäinen R, Straus S, Dogne J-M, Bakchine S, Haas M. Reducing valproate use in women with epilepsy. Lancet Neurol. 2018;17(7):580–1.
- 77. Wieck A, Jones S. Dangers of valproate in pregnancy. BMJ. 2018;361:k1609.
- 78. FDA, US. FDA Drug Safety Communication: valproate anti-seizure products contraindicated for migraine prevention in pregnant women due to decreased IQ scores in exposed children. FDA website; 2018.
- 79. European Medicines Agency. PRAC recommends new measures to avoid valproate exposure in pregnancy [Internet]. 2018. http://www.ema.europa.eu/ema/index.jsp?curl=pages/news\_and\_events/news/2018/02/news\_detail\_002903.jsp&mid=WC0b01ac058004d5c1.
- National Collaborating Centre for Mental Health. Antenatal and postnatal mental health: the NICE guideline on clinical management and service guidance. British Psychological Society; 2007.
- 81. Dolk H, Jentink J, Loane M, Morris J, de Jong-van den Berg LTW, EUROCAT Antiepileptic Drug Working Group. Does lamotrigine use in pregnancy increase orofacial cleft risk relative to other malformations? Neurology. 2008;71(10):714–22.
- 82. Huybrechts KF, Hernández-Díaz S, Patorno E, Desai RJ, Mogun H, Dejene SZ, et al. Antipsychotic use in pregnancy and the risk for congenital malformations. JAMA Psychiatry. 2016;73(9):938–46.
- 83. Food and Drug Administration. FDA Drug Safety Communication: Antipsychotic drug labels updated on use during pregnancy and risk of abnormal muscle movements and withdrawal symptoms in newborns [Internet]. 2011. http://www.fda.gov/DrugSafety/ucm243903.
- 84. Gentile S. Antipsychotic therapy during early and late pregnancy. A systematic review. Schizophr Bull. 2010;36(3):518–44.
- 85. Mehta TM, Van Lieshout RJ. A review of the safety of clozapine during pregnancy and lactation. Arch Womens Ment Health. 2017;20(1):1–9.
- 86. Gentile S, Bellantuono C. Selective serotonin reuptake inhibitor exposure during early pregnancy and the risk of fetal major malformations: focus on paroxetine. J Clin Psychiatry. 2009;70(3):414–22.
- 87. Sujan AC, Rickert ME, Öberg AS, Quinn PD, Hernández-Díaz S, Almqvist C, et al. Associations of maternal antidepressant use during the first trimester of pregnancy with preterm birth, small for gestational age, autism spectrum disorder, and attention-deficit/hyperactivity disorder in offspring. JAMA. 2017;317(15):1553–62.
- 88. Nordeng H, Spigset O. Treatment with selective serotonin reuptake inhibitors in the third trimester of pregnancy: effects on the infant. Drug Saf. 2005;28(7):565–81.

- 89. Chambers CD, Hernandez-Diaz S, Van Marter LJ, Werler MM, Louik C, Jones KL, et al. Selective serotonin-reuptake inhibitors and risk of persistent pulmonary hypertension of the newborn. N Engl J Med. 2006;354(6):579–87.
- Brown HK, Ray JG, Wilton AS, Lunsky Y, Gomes T, Vigod SN. Association between serotonergic antidepressant use during pregnancy and autism spectrum disorder in children. JAMA. 2017;317(15):1544–52.
- 91. Healy D, Le Noury J, Mangin D. Links between serotonin reuptake inhibition during pregnancy and neurodevelopmental delay/spectrum disorders: a systematic review of epidemiological and physiological evidence. Int J Risk Saf Med. 2016;28(3):125–41.
- 92. Enato E, Moretti M, Koren G. The fetal safety of benzodiazepines: an updated meta-analysis. J Obstet Gynaecol Can. 2011;33(1):46–8.
- 93. Rasmussen K. The practice of electroconvulsive therapy: recommendations for treatment, training, and privileging (second edition). J ECT. 2002;18(1):58–9.
- 94. Yonkers KA, Vigod S, Ross LE. Diagnosis, pathophysiology, and management of mood disorders in pregnant and postpartum women. Obstet Gynecol. 2011;117(4):961–77.

# Mixed Forms in Bipolar Disorder and Relation to Gender

32

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#### Abstract

Mixed states describe the simultaneous presence of manic and depressive symptoms in the same patient. This phenomenon is more prevalent in women. Activation, thinking, and mood are combined in a strange form, being possible that some of these three dimensions are increased from the euthymic period, while others are decreased. It is quite common presentation of irritable mood, with rapid thinking, suicidal ideas, anxiety, helplessness, and sexual disinhibition. Sometimes there are variations in the clinical presentation in the same day.

There are some depressive symptoms present in the mixed states that are more relevant for the diagnosis: depressed mood, guilt, suicidal ideation, anhedonia, and fatigue. Irritable mood and psychotic symptoms are also frequently present in mixed states.

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© Springer Nature Switzerland AG 2019 M. Sáenz-Herrero (ed.), *Psychopathology in Women*, https://doi.org/10.1007/978-3-030-15179-9\_32 766 A. González-Pinto et al.

One aspect that is relevant for the prognosis of mixed states is the earlier age at onset. The younger age at onset and the delay in the diagnosis explain partially, but not all the differences in prognosis of this severe disease. These patients are also in higher risk of drug and alcohol abuse.

Actually DSM-V has included partially this aspect and has considered the diagnosis of mixed symptoms as specifier of mania, hypomania, bipolar depression, and moreover, unipolar depression. The special follow-up of those patients with unipolar major depression and three manic symptoms is actually diagnosed as major depression with mixed symptoms. A careful follow-up should be done in those patients in order to consider a bipolar disorder in the future.

## 32.1 Historical Evolution of the Concept of Mixed States

Mixed states or mixed episodes have been recognized since ancient times. Aretaeus de Cappadocia described violent anger in melancholic patients. In 1759 the Spanish doctor Andrés Piquer [1] described the symptoms of a mixed episode referring to the last phase of the illness of King Ferdinand VI: "Sometimes affections are dominating and sometimes the opposite." According to González-Pinto [2], in the early nineteenth century, 1818, Heinroth called "mixtures" Mischungen [3] to these clinical presentations. Probably, one of the most important authors in the history of the concept of mixed state was the German psychiatrist Weygandt [1899] [4], who described: "Manic stupor, agitated melancholia and unproductive mania." Kraepelin's description of mixed states in the same year, 1899, is based on this monograph [5]. Both psychiatrists were the first ones to suggest the existence of mixed episodes in the context of manic-depressive insanity. Finally, Kraepelin was the one who focused the attention on mixed episodes and the one who developed the concept until nowadays. An entire chapter was included in his book Manic-Depressive Insanity and Paranoia [6]. Kraepelin conceptualized mixed forms, sometimes as clinical states and sometimes as transitional phenomena between the two major forms of the disease. "Some morbid symptoms fade quickly, others more slowly, while other phenomena, in a developing state, starts to emerge."

This author classifies them into six different types depending on the various combinations of manic and depressive symptoms considering mood, activity, and thought: ideofugal depression, agitated depression, manic stupor, unproductive mania, depressive or anxious mania, and inhibited mania [6] (Table 32.1).

## 32.2 Psychopathology of Mixed Mania in Women

As stated by Kraepelin, mixed episodes are characterized by the presence of different combinations of opposite directions in mood, motor activation, and thinking. Mood is more frequently irritable, but sometimes it is depressed. Infrequently euphoria is present, and in these cases motor activity and thinking are inhibited. The most frequent

|                | Humor                | Activity   | Thinking  |
|----------------|----------------------|--|---|
| Depression     | Depression           | Motor delay  | Ideofugal   |
| With flight of | Hopelessness,        | Show interest in the                                     | Frequently without flight   |
| ideas          | anxiety, sadness,    | environment but remain                                   | of ideas and delusional   |
|                | lability             | virtually silent and rigid                               | fears, flight of ideas can<br>only be recognized when<br>they write |
| Excited or     | Anxiety              | Hyperactivity  | Inhibited   |
| agitated       | Tearful, irritable,  | They run back and forth.                                 | Extraordinary poverty of  |
| depression     | self-accusations     | Throwing objects.  | thought; delusional   |
|                |                      | Weeping and wailing,<br>monotonous cries                 | interpretations   |
| Manic stupor   | Euphoria             | Gross motor delay  | Inhibited   |
|                | Content, laugh       | Inaccessible, can reach the                              | Only occasionally are   |
|                | without cause,       | trance, unexpectedly show                                | isolated delusions, usually   |
|                | seductive, erotic    | hostility, and immediately return to the inaccessibility | well oriented   |
| Mania with     | Euphoria             | Hyperactivity  | Inhibited   |
| poverty of     |                      | Grinning, dancing, and                                   | Perception slow and   |
| thought        |                      | throwing things.   | inadequate with difficulty  |
|                |                      | Impulsivity that sometimes explodes into violence        | thinking. Large fluctuations  |
| Depressive     | Anxiety              | Hyperactivity  | Ideofugal   |
| or anxious     | Despair anxious      | Great agitation without                                  | Distractible, no goal   |
| mania          |                      | awareness of increased                                   | The thoughts themselves   |
|                |                      | activity   | are imposed   |
| Inhibited      | Euphoria             | Motor delay  | Ideofugal   |
| mania          | Exultant, irritable, | Apparently inhibited, great                              | Jocular conversation with   |
|                | distractible with a  | internal tension that could                              | racing ideas and numerous   |
|                | tendency to joke     | explode into violence                                    | associations for assonance  |

**Table 32.1** Kraepelin's classification of mixed states

presentations of mixed episodes in women are characterized by irritability and anxiety. Negative self-evaluation, suicide, dysphoria, psychic and somatic anxiety, social withdrawal, indecisiveness, worry, self-reproach, phobia, fatigue, discouragement, dullness of thought, loss of interest, depersonalization, panic, feelings of inadequacy, and ruminations are also frequent symptoms associated with irritable mood.

An important issue to recognize mixed episodes is to consider not only the actual clinical presentation but to observe the changes present during 24 h or during few days. Mood changes sometimes from one pole to the opposite, and lability is present in combination with anxiety. Women with mixed states are tearful, and it is important to consider this symptom as a part of the disease.

In relation with activity, it is more usual to see motor hyperactivity, although when there is euphoria, the patient can be inhibited. It is possible to see mixed cases with depression and inhibition but with accelerated thinking and flight of ideas.

The most frequent presentation of thinking in mixed states in women is with rapid thinking and flight of ideas. These symptoms are accompanied by distractibility and the absence of goal. As the clinical presentations are broad, following 768 A. González-Pinto et al.

Kraepelin's descriptions and modern ones, there are some patients with slow thinking, generally accompanied by psychomotor inhibition and euphoria or irritability.

The presence of delusions is common, especially at younger ages. Mood congruent and mood incongruent symptoms are possible in the clinical presentations of mixed mania. It is important to ask patients about delusions, as some of them do not talk about their ideas. Patients with mixed states are usually more conscious about having a mental illness than other bipolar patients. Nevertheless, they do not capture exactly what is wrong, with a bad insight in the first stages of the disease.

#### 32.2.1 Categorical Conceptualizations of Mixed Mania

The first categorical description of mixed states corresponds to the research diagnostic criteria (RDC) [7], establishing two presenting options for these pictures. In the first one, the manic and depressive symptoms coexist simultaneously in the same period, while in the second, the manic and depressive episodes occur without interruption.

For the first time in diagnostic manuals, the DSM-III-R recognized mixed states as a subtype of bipolar disorder, which appeared subclassified as mixed bipolar disorder, manic or depressive episode according to the clinical presentation today. Mixed bipolar disorder was defined according to two criteria: (a) the current or most recent episode including full symptoms of manic episodes and major depressive episodes (requiring a minimum of 2 weeks for depressive symptoms), both symptomatologies rapidly alternating, and (b) predominant depressive symptoms lasting at least one complete day. Like the DSM-III-R, ICD-9 did not provide empirically derived criteria for mixed state but refers to the criteria for mania and depression in a further vague and ambiguous definition: "Manic- depressive psychosis, circular type, mixed: affective psychosis in which both manic and depressive symptoms are present at the same time."

In DSM-IV and DSM-IV-TR [8], diagnostic criteria for mixed episode were more restrictive for a better differential diagnosis with rapid cycling. It constituted a different diagnostic category with manic and depressive episode, and DSM-IV provided descriptions of course and prognosis for this condition, which were not considered before. However, it continues without providing specific diagnostic criteria and still requires the presence of a full depressive episode with a manic episode, with the only change that the temporal criteria for depressive episode are reduced to only 1 week. ICD-10 [9] also insists on the simultaneous presence of manic and depressive symptoms for the diagnosis of mixed episode but only refers to it without a complete clinical description.

Some symptoms may be particularly relevant to describe depressive mixed states. In fact, Cassidy et al. [10] found that only five [depressed mood, guilt, suicidal ideation, anhedonia, and fatigue] of the nine depressive symptoms of DSM-III-R had predictive value for the diagnosis of mixed mania. Following this two perspectives of mixed states, there are two types of definitions described: intermediate and broad definitions [11].

Table 32.2 Diagnostic criteria for dysphoric mania (McElroy et al., 1992) [14]

- (a) A full manic episode according to DSM-III-R
- (b) Simultaneous presence of at least three of the following depressive symptoms:
  - Depressed mood
  - 2. Markedly diminished interest or pleasure in all or most activities
  - 3. Substantial weight gain or increased appetite
  - 4. Hypersomnia
  - 5. Psychomotor retardation
  - 6. Fatigue or loss of energy
  - 7. Feelings of failure or excessive or inappropriate guilt
  - 8. Feelings of inadequacy or hopelessness
- (c) Recurrent thoughts of death, recurrent suicidal ideation, or a specific plan for committing suicide

The *intermediate categorical definition* proposal includes mainly Bauer [12] definition according to his great impact and was also adopted by the Cincinnati group [13].

This group, conducted by MacElroy, adopted the term "dysphoric mania" to refer to Kraepelin's anxious mania since 1992 [14] (Table 32.2). They propose a diagnosis from the DSM-III-R criteria for mania plus two substantial depressive symptoms, defined as one that, from the clinical point of view, does not overlap with manic symptoms.

On the other hand, the *broad categorical definitions* describe mixed mania as any manic episode accompanied by minimal depressive symptoms.

In conclusion, the most accepted definition of mixed mania by most of the current researches requires a full manic episode with coexisting depressive symptoms. The fact that the theories proposed by Akiskal [15, 16] and Perugi [17] have had a great impact and that the Cincinnati group [14] definition has become a paradigm, determining which are the most relevant depressive symptoms at the time of establishing this diagnosis.

#### 32.2.2 Dimensional Conceptualizations of Mixed Mania

In recent decades it has begun a new classification for symptomatology, dimensional perspective. It is used in research to find consistent symptom clusters. This dimensional approach can identify different subtypes or dimensions of symptoms that can lead to very heterogeneous diagnostic categories, making the diagnosis more difficult, but that can correlate with etiologic and prognostic variables very accurately.

Precisely manic factorial studies have empirically tested Kraepelin's observations: different dimensions have been identified and combine to make distinct manic subtypes. Arguably, this line of research started in 1998 with the work of Cassidy et al. [18]. In general, almost all dimensional studies of mania have focused on confirming the mixed anxiety-depressive subtype equivalent to the DSM and ICD definition for mixed episodes.

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|                                   | Scales                                     | Symptoms  | N   |
|-----------------------------------|--|---|-----|
| Cassidy et al. (1998) [18]        | SMS  | Depressed mood, anxiety, guilt, suicide, emotional lability   | 237 |
| Dilsaver et al. (1999) [21]       | SADS                                       | Negative self-evaluation, suicide, dysphoria, psychic and somatic anxiety, social withdrawal, indecisiveness, worry, self-reproach, phobia, fatigue, discouragement, dullness of thought, loss of interest, depersonalization, panic, agitation |     |
| Swan et al. (2001) [22]           | SADS y MSRS                                | Self-reproach, negative evaluation, worry, despair, suicide, dysphoria, psychic and somatic anxiety   | 162 |
| Rossi et al. (2001) [23]          | Bech-Rafaelsen<br>mania and<br>melancholia | Mental retardation, psychic anxiety, suicide, depressed mood, blame   | 124 |
| Hantouche et al. (2001) [24]      | MVAS-BP                                    | Neglect, worry, feelings of inadequacy  | 104 |
| Sato et al. (2002) [19]           | AMDP                                       | Depressed mood, feelings of guilt, rumination, suicide, delirium of guilt, feelings of impoverishment, anxiety  | 576 |
| Akiskal et al. (2003) [25]        | MSRS                                       | Appearance depression, feelings of depression, impulsivity  | 104 |
| González-Pinto et al. (2003) [20] | YMRS y<br>HDRS-21                          | Depressed mood, suicide, guilt, obsessive   | 103 |

**Table 32.3** Dimensions of depressive mania

Thus, the manic-depressive anxious Kraepelin type would be defined by the combination of purely manic dimensions [hedonism activation, dysphoria, psychosis] with depressed mood dimension. In most studies [16, 18–21], this depressive dimension has a bimodal distribution; it appears in some manic patients but not in others, which also empirically confirms the categorical separation of pure and mixed manic subtypes. Regarding the symptoms that constitute the depressive dimension, most of the clinical identifying research finds coincidences between depressed mood and psychic anxiety using different scales for evaluation. Specifically, the group of Dr. Gonzalez-Pinto [11] proposes that "depressive dimension of acute mania consists of the following five items of the Hamilton Depression Rating Scale [HDRS -21]: depressed mood, suicidal ideation, guilt, obsessive- compulsive symptoms psychic anxiety (Table 32.3)."

It is also noted that authors such as Sato et al. [19] found a factor of "depressive inhibition" independent from "depressed mood" that supports the Kraepelin's classification of mixed states. Kraepelin described three mixed subtypes with depressive inhibition; however, this syndrome has aroused little interest among researchers.

Below are some of the dimensional models of major mania:

## (a) Model "Paranoid-Destructive/Euphoric-Grandiose" (Murphy and Beigel, 1974) [26]

In 1974, Murphy and Beigel analyzed factorially the Manic State Rating Scale [MSRS], and they identify two subtypes of mania: "paranoid-destructive" and "euphoric-grandiose." Although this typology was widely accepted and efforts were made to be confirmed, it had limited success.

#### (b) Three-Dimensional Models of Mania (Double, 1990) [27]

Double tried to replicate the results obtained by Beigel and Murphy with the completion of two separate factor analyses from the MSRS and the Young Mania Rating Scale and yielded two three-factor solutions. He identified from the YMRS: "thought disorder, aggressive behavior and hyperactivity and mood elevation and vegetative symptoms" and from the MSRS: "speech motor disorder, aggression and mood unrealistic expansiveness."

# (c) Model of Five Dimensions: The dimension of Dysphoric Mania (Cassidy et al., 1998) [18]

In 1998 Cassidy published an interesting study that analyzed the dimensions of mania in a large sample of bipolar I patients with manic and mixed episodes, and he used his own scale: the Scale for Manics States (SMS). The relevance of this work lies in the dimensionally focused study of mania and mixed states in an attempt to clarify its nature, providing statistical support, and their relationship with pure mania. It identifies five independent clinical dimensions; one of them, the "dysphoria factor," represents depressive symptoms during mania and has a bimodal distribution, which confirms that dysphoric mania is a subtype of mania within the overall mania. This model represents the starting point for the study of the paintings dimensional mixed manic since it analyzes and presents, for the first time, the presence of a depressive dimension in mania.

#### (d) Model of Longitudinal Dimensions (Serreti et al., 1999) [28]

Serreti et al. try to validate the results obtained by Cassidy, but the dimensional study of mania was from a longitudinal approach. They use a selection of 16 of the 38 items of the Operational Criteria Checklist for Psychotic Illness and identify three factors of mania ["physical arousal and motor," "psychosis," and "irritability"] consistent with those described by Cassidy, except that Serreti does not identify a clinical depression dimension.

#### (e) Dimensional Model Dilsaver et al. (1999) [21]: The Depressive Dimension

Dilsaver et al. retake dimensional study of mania in the line proposed by Cassidy et al. and identify a solution of four factors which includes a depressive dimension. For factor analysis they use a selection of 37 items of the Schedule for Affective Disorders and Schizophrenia [SADS], among which includes an explicit evaluation of depressive symptoms.

# (f) Five Component Models: Symptoms of Depressive Dimension (Gonzalez-Pinto et al., 2003) [16]

One of the most recent proposed models has been developed by the research group of Dr. Gonzalez-Pinto. Using two standardized scales commonly used in clinical practice to quantify the affective symptoms, it has managed to replicate the model initially proposed by Cassidy et al. From the Hamilton Depression Rating Scale [HRSD-21] and the YMRS, it has identified five component solutions which include "depressive dimension" with a composition almost identical to dysphoric factor by Cassidy et al. In addition, further work has shown the need to assess depressive symptoms in all manic-depressive disorders since the dimension appears in pure mania patients diagnosed with DSM-IV-TR. Thus virtually all clinical studies

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of manic dimensional have focused on anxious-depressive mixed subtype; it confirmed that it would be the equivalent to the definition of the DSM and ICD for mixed episodes. Thus, Kraepelin's anxious-depressive mania was defined by the combination of purely manic dimensions [hedonism activation, dysphoria, and psychosis], with depressed mood dimension. In most of the work, this depressive dimension presents a bimodal behavior: it appears in some manic patients but not in others, so that it also confirms empirically the categorical separation of pure manic and mixed subtypes. For symptoms that make up the depressive dimension, most researches identify that clinical symptomatology coincides depressive mood and mental anxiety using different scales for evaluation.

# 32.3 Contributions and Mixed Episode: New Approach in DSM-V [29]

#### 32.3.1 Mixed Features Specifier

In the fifth edition of the DSM [29], diagnosis of mixed episode is replaced by "mixed characteristic specification" that can be applied to episodes of major depression, hypomania, or mania. The change reflects the ways in which the mixed characteristic can interact with depression, mania, or hypomania symptoms. This can lead benefits in the diagnosis and patient care.

In DSM-IV [8], a diagnosis of mixed episode required that the individual fulfilled all the criteria for a major depressive episode simultaneously with an episode of mania.

During the review of the latest research, the working research group of mood disorders in DSM-V acknowledged that people rarely meet the full criteria for the two types of episodes at the same time.

#### 32.3.2 Using Specifiers

To be diagnosed with the new specifier in the case of major depression, the new DSM-V [29] requires the presence of at least three symptoms of mania/hypomania that do not overlap with symptoms of major depression. These manic or hypomanic symptoms may include elevated mood, higher self-esteem, decreased need for sleep and increased energy, or goal-directed activities. At least three of these symptoms must be present nearly every day for the last 2 weeks of major depressive episode.

Conversely, in the case of mania or hypomania, the specifier requires the presence of at least three symptoms of depression linked with the episode of mania/hypomania. Depressive symptoms can include depressed mood, diminished interest or pleasure, physical and emotional lability retardation, fatigue or loss of energy, and recurrent thoughts of death. At least three of these symptoms must be present

nearly every day during the last week of a manic episode or during the last 4 days of a hypomanic episode.

#### 32.3.3 Improvement in Diagnosis and Care

The specifier will allow doctors to diagnose more accurately their patients who may be suffering from comorbid symptoms of depression and mania/hypomania and give them better treatment to the extent of their behaviors. This is especially important since many patients with mixed characteristics have poor response to lithium or are destabilized when taking antidepressants [30, 31]. In fact, Schaffer et al. in 2006 observed a higher prescription rate in women for antidepressant medications, even in the absence of complete/major depressive episodes, which placed women in a higher risk of antidepressant-induced mania or rapid cyclization. In addition an early identification of these behaviors could allow doctors to recognize people with unipolar disorder who have an increased risk of progression to bipolar disorder [32].

#### 32.4 Mixed Features in Women

Regardless the type of definition used for diagnosis, mixed episodes are more common among women [33, 65], although the differences are often more striking when using conventional categorical and stringent criteria. Some studies find that 67% [34] of women who present a first bipolar episode presented concomitant mixed symptoms according to ICD-10 criteria for a mixed episode, obtaining similar rates (62%) when the diagnosis is established using DSM-IV criteria, as data registered in González-Pinto's study [35]. In 2010 Diflorio and Jones [36] performed a systematic review between January 1980 and 2010 on gender differences in bipolar disorder, manic depression, and mania. In this review, we found a number of studies focused on mixed episodes, appreciating that most of these episodes were more frequent in women with bipolar disorder [54]. More recent research have shown a higher prevalence of mixed episodes in hospitalized women with BD, compared to men [66]. Clinical studies on manic dimension report the association of female gender to depressive dimension [37], hovering around 66% in the study by Cassidy [38] and 60% in the work of Sato et al. [19].

According to the latest changes in DSM-V classification regarding mixed states, we have focused in reviewing the most recent evidence to determine gender differences.

#### 32.4.1 Major Depression with Mixed Features

(Appearing commonly in previous literature as "mixed depression")

According to Miller study in 2016 [65], women were more likely than men to experience subthreshold hypomanic symptoms during depressive episodes

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(40.7% compared to 34.4%) and pure hypomanic symptoms (17.2% compared to 14.7%). They could observe that in general terms, women were more likely than men to present mixed features. This has been a controversial subject among past years as in some previous studies these differences were demonstrated, while in others, no gender differences were found [67].

#### 32.4.2 Mania/Hypomania with Mixed Features

The female predominance of depressive symptoms during mania could be related to the increased susceptibility of women to depression in general. Theories that attempt to explain these gender differences are mainly based on constitutional rate variations associated with endocrine, genetic or temperamental factors. According to Miller study in 2005, women were more likely to experience depressive symptoms during hypomania [68].

#### 32.4.2.1 Hormonal Factors

#### **Reproductive Life Cycle and Depression**

It has been deeply studied the influence of reproductive life cycle in women and its link to the affective state. Essentially, all of the reproductive cycle events are associated in some women anxious-depressive clinic. They have been described several syndromes such as premenstrual syndrome and premenstrual dysphoric disorder [41], postnatal blues and postpartum depression [42], of oral - contraceptive dysphoria [43] and perimenopausal depression [44].

The relationship between emotional disorders and hormonal cycle [40] [45] has also been investigated in women diagnosed with bipolar disorder, especially in order to set some special considerations on drug therapy at moments that are critical. Although bipolar women describe striking mood swings during the menstrual cycle [41], studies have not been able to establish a consistent pattern between hormonal cycle phase and mood changes direction, probably because of the phenotypic heterogeneity of bipolar disorder, the small size of the samples, or the interference of medication.

Although more studies are needed to investigate systematically the variations in manic phenomenology associated to the effect of gonadal hormones, mood disturbances described the main changes are related to depressive symptoms [46].

With regard to pregnancy and postpartum [40], although pregnancy traditionally has been considered a protective factor against relapse, this assumption is being challenged by new research. What we have found repeatedly is that the postpartum period is a high risk to mental disorder [47]. The risk of first hospitalization for bipolar disorder is multiplied by 7 during the first months after birth. Compared with women without a psychiatric history, women with bipolar disorder are at increased risk of developing 100 postpartum psychoses [46]. There are also studies indicating that 67% of bipolar patients presented a relapse postpartum, almost certainly the depressive type, and they all return to rest with successive deliveries [48].

That is, periods of intense hormonal fluctuations are associated with a risk of affective dysregulation, primarily depression, in women diagnosed with bipolar disorder.

#### **Thyroid Dysfunction and Depression**

The women have a high prevalence of thyroid dysfunction related to greater vulnerability to developing autoimmune abnormalities. In fact, in 1995 Whybrow [49] indicated that the prevalence of thyroid disease throughout life was four to ten times greater in women.

Thyroid disorders, on the other hand, have been linked to an increased risk of psychiatric disorders, mainly with anxiety and affective [50, 51]. Regarding the latter, it described an association between mania and hyperthyroidism, between depression and hypothyroidism, and even between hypothyroidism and rapid cycling bipolar disorder.

It has also been explicitly studied the influence of thyroid hormones in the clinical expression of the pictures and their relationship to manic gender of patients. We compared thyroid function between pure and mixed manic patients and found mild abnormalities (increased TSH and decreased thyroxine) in the mixed group but could not objectify differences between thyroid function in men and women with mixed episodes [2].

#### 32.4.2.2 Genetic Factors

On the one hand, classical bipolar disorder research authors have begun to study the high comorbidity detected between this disorder and anxiety disorders, which is between 30 and 51% [52]. On the other hand, the anxiety disorders are associated with bipolar disorder, panic disorder [with or without agoraphobia], social phobia, and, less often, OCD [52].

These comorbid conditions are associated with an earlier age of onset of bipolar disorder, a rapid cyclization, poorer response to lithium treatment, and higher drug use [53]. Furthermore, it was observed that suicide rates are duplicated in bipolar patients who have had at least one GAD throughout life except in the case of obsessive compulsive disorders [54, 55].

One of the reasons to explain this association is that bipolar and anxiety disorders may share a biological or genetic risk. This is supported by the high rates of affective disorders in patients' relatives with anxiety disorder, and the well response to the same drug treatments. Specifically Mackinnon et al. [52] considered that the risk for panic disorder in families of patients with bipolar disorder is an inherited trait. Going one step further, Rotondo et al. [56] argue that comorbid panic disorder identifies a genetic subtype of bipolar disorder and suggests the vulnerability to these boxes associated with certain polymorphisms in catechol methyltransferase (COMT Met 158) and in serotonin transporter (5-HTTLPR). But it has also been suggested that comorbidity between the two disorders could refer to a predisposition to manic mixed boxes, in which clinic with depressive mood appears anxious component. The depressive dimension described by González-Pinto group [11] includes obsessive symptoms and psychic anxiety. Additional comorbid conditions

are associated with a more torpid evolution of bipolar disorder and an increased risk of suicide [54].

Therefore, perhaps the greatest prevalence of mixed states in women is also associated with a higher genetic predisposition to anxiety that produces more severe forms of bipolar disorder.

#### 32.4.2.3 Characterological or Temperamental Factors

Akiskal in 1992 develops a theory about the nature of mixed states [57]. He considers that these pictures would be a result of an opposition between temperament and current affective state, rather than the superposition of two different affective states. This research study describes three kinds of mixed bipolar disorders:

- Type I: Depressive and manic temperament. It is developed on the basis of a
  depressive temperament and is usually accompanied by psychotic symptoms,
  sometimes incongruent with the mood. Therefore, this type is often confused
  with schizoaffective disorder and even acute polymorphic psychotic disorder or
  delusional bouffée.
- Type II: Cyclothymic temperament and major depression. Overall this second
  type is not accompanied by psychotic symptoms. This combination produces
  symptoms such as mood lability, irritability, flight of ideas, sexual impulsivity,
  and substance abuse. According to Akiskal, the risk of these depressions misdiagnosed provokes a Borderline personality diagnosis.
- Type III: Hyperthymic temperament and major depression. It is often refractory to treatment with antidepressants (Table 32.4).

Akiskal theory has had a major impact. In addition, it was found that women present more frequently than men depressive temperaments, making them more vulnerable to depressive episodes and mixed mania boxes [37].

Recently Akiskal team has attempted to validate this hypothesis by studying the relationship between the dimensions manic affective temperaments and gender [59]. The starting point of this work is the consideration that the opposition between affective state and temperament is further evidence of central dysregulation characterized mania and mixed mania that cannot be defined solely on the clinical (DSM, ICD) but also on the basis dimensionally temperament. It is

**Table 32.4** Affective temperaments [based on the criteria established by Akiskal and Mallya in 1987] [58]

| Depressive temperament                                       | Hyperthymic temperament                      |
|--|--|
| Sad, pessimistic, unable to enjoy                            | • Irritable, happy, optimistic, or exuberant |
| <ul> <li>Standing, passive, or indecisive</li> </ul>         | Self-confident, great                        |
| <ul> <li>Skeptical, hypercritical, or complainant</li> </ul> | • Full of plans, reckless, impulsive         |
| Tendency to worry  | Talkative                                    |
| Self-disciplined   | Outgoing                                     |
| Self-critical  | Very involved                                |
| <ul> <li>Feelings of inadequacy and guilt</li> </ul>         | • Promiscuous                                |

confirmed that women have higher scores on the depressive dimension of mania [60] and it seems that there is a high correlation between this dimension and depressive temperament.

Therefore, from this approach, we are back with a trait variable, depressive temperament, which provides more data to support the hypothesis that female predisposition to mixed mania is associated with an increased vulnerability to depression.

#### 32.5 Depression Male Equivalents

As it has been presented previously, other gender-related differences in the phenomenology of manic consumption are the increase of drug use in males [39]. Overall, comorbid substance is very high in patients with a diagnosis of bipolar disorder (38% for alcohol, 25% for other substances).

Perhaps the differences in drug use between men and women could be explained if we consider the increased consumption of drug as a depressive equivalent in males. It is detected a high comorbidity between substance harmful consumption and major depression in men [61]. It is also seen that substance abuse is a risk multiplied by 7 discussing suicide and 87% of suicides in alcohol dependent men, compared with 13% of women. More details are obtained for research on affective disorders and suicide in Amish population [remember that this religious community of Swiss origin has banned alcohol and drugs, being a very homogeneous population culturally and genetically]. In a classic study [62], it is found that 71% of the mentally ill in the community had a major affective disorder and that the incidence and prevalence of unipolar disorders was identical for men and women. Depression rates were multiplied by 3, and this was related to his doctrine of non-hostility and teetotaler. Based on these observations, Walinder and Rutz [63] propose a "male depressive syndrome" characterized by low tolerance for frustration, acting out behavior, poor impulse control, and substance abuse.

Already in 1976, Himmelhoch [64] considered "abuse of alcohol and other substances, including organic factors may be necessary for the development of mixed mania in men."

#### 32.6 Discussion

Faced with the same disease, it has been demonstrated that women experiment some specific characteristics regarding clinical presentation in BD, with a higher probability to present mania/hypomania with mixed features and depression with mixed features (previously known as mixed states). In mania with mixed feature cases in women, depressive symptoms appear to arise from a variable or depressive temperament trait under which, in turn, could underlie a correlate of related constitutional genetic or hormonal factors. Ultimately, women are more vulnerable to depression in general (unipolar, bipolar, with mixed features). Thus, depressive symptoms are more likely to appear during a manic episode and, in the other way round, using

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antidepressants in an attempt to submit depressive symptoms, increases the probabilities of symptom shift and suffer manic/hypomanic symptoms/episode.

Substance use is significantly higher among men than among women with acute mania; this fact can underlie a male depressed mood, in which manic symptom episode may be the consequence of drug effects. In this sense, it might be enlightening to study the temperament of manic patients who have comorbid toxic.

Furthermore, differences between men and women regarding depressive symptoms are so striking as apparently reveals the data. This, on the one hand, could be explained by the way we value depressive symptoms. From the cognitive point of view, men have higher yields in mathematical and visuospatial solving tasks (Sommer et al., 2004), while women own higher communications skills as they are more efficient in verbal fluency and perceptual speed. In fact, one of the issues debated in neuropsychological research is the extent to which language is more bilaterally represented in women's brain. As mean of communication with our patients is primarily language, in this sense, we are more able to assess depression in women.

Finally, from a gender perspective, it has been always considered and accepted that ontogenetically men were prepared for fight and women for providing care; this probably induces or predisposes to differences in temperament or variations in clinical presentations. According to social development and changes such as women's empowerment and children's education, behavioural, temperamental, and communicative changes and progress can be made, regardless of gender. Thus, need of further studies in this field should be considered to evaluate these changes in a modern, non-retrograde, and equivalent society, in order to provide an optimal and individualized intervention and treatment.

#### References

- 1. Perez J, Baldessarini RJ, Cruz N, Salvatore P, Vieta E. Andres Piquer-Arrufat [1711–1772]: contributions of an eighteenth-century Spanish physician to the concept of manic-depressive illness. Harv Rev Psychiatry. 2011;19(2):68–77.
- Gonzalez-Pinto A, Aldama A, Mosquera F, Gonzalez GC. Epidemiology, diagnosis and management of mixed mania. CNS Drugs. 2007;21(8):611–26.
- Heinroth JCA. Lehrbuch der Störungen des Seelenlebens Oder der Seelenstörungen und Ihre Behandlung vRSaE. Germany: Leipzig\*\*; 1918.
- Marneros A. Origin and development of concepts of bipolar mixed states. J Affect Disord. 2001;67(1):229–40.
- 5. Kraepelin E. Psychiatrie. Ein Lehrbuch für Studierende und Ärzte, Klinische Psychiatrie. Leipzig: Verlag von Johann Ambrsius Barth; 1899.
- 6. Kraepelin E. Manic depressive insanity and paranoia. J Nerv Ment Dis. 1921;53(4):350.
- Spitzer RL, Endicott J, Robins E. Research diagnostic criteria: rationale and reliability. Arch Gen Psychiatry. 1978;35(6):773.
- Association AP. Diagnostic and statistical manual of mental disorders: DSM-IV-TR®: American Psychiatric Pub; 2000.
- 9. World Health Organization. The ICD-10 classification of mental and behavioural disorders: clinical descriptions and diagnostic guidelines. Geneva: World Health Organization; 1992.

- Cassidy F, Carroll BJ. The clinical epidemiology of pure and mixed manic episodes. Bipolar Disord. 2001;3(1):35–40.
- 11. Gonzalez-Pinto A, Aldama A, Pinto AG, Mosquera F, Perez de Heredia JL, Ballesteros J, et al. Dimensions of mania: differences between mixed and pure episodes. Eur Psychiatry. 2004;19(5):307–10.
- 12. Bauer MS, Whybrow PC. Rapid cycling bipolar affective disorder. II. Treatment of refractory rapid cycling with high-dose levothyroxine: a preliminary study. Arch Gen Psychiatry. 1990;47(5):435–40.
- 13. McElroy SL, Strakowski SM, Keck PE Jr, Tugrul KL, West SA, Lonczak HS. Differences and similarities in mixed and pure mania. Compr Psychiatry. 1995;36(3):187–94.
- McElroy SL, Keck PE Jr, Pope HG Jr, Hudson JI, Faedda GL, Swann AC. Clinical and research implications of the diagnosis of dysphoric or mixed mania or hypomania. Am J Psychiatry. 1992;149(12):1633–44.
- 15. Akiskal HS, Benazzi F. Toward a clinical delineation of dysphoric hypomania operational and conceptual dilemmas. Bipolar Disord. 2005;7(5):456–64.
- Hantouche EG, Akiskal HS, Azorin JM, Chatenet-Duchene L, Lancrenon S. Clinical and psychometric characterization of depression in mixed mania: a report from the French National Cohort of 1090 manic patients. J Affect Disord. 2006;96(3):225–32.
- 17. Perugi G, Micheli C, Akiskal HS, Madaro D, Socci C, Quilici C, et al. Polarity of the first episode, clinical characteristics, and course of manic depressive illness: a systematic retrospective investigation of 320 bipolar I patients. Compr Psychiatry. 2000.;41[1;41:13–8.
- 18. Cassidy F, Murry E, Forest K, Carroll BJ. Signs and symptoms of mania in pure and mixed episodes. J Affect Disord. 1998;50.[2-3:187–201.
- Sato T, Bottlender R, Kleindienst N, Moller HJ. Syndromes and phenomenological subtypes underlying acute mania: a factor analytic study of 576 manic patients. Am J Psychiatry. 2002;159(6):968–74.
- Gonzalez-Pinto A, Ballesteros J, Aldama A, Perez de Heredia JL, Gutierrez M, Mosquera F, et al. Principal components of mania. J Affect Disord. 2003;76(1–3):95–102.
- Dilsaver SC, Chen YR, Shoaib AM, Swann AC. Phenomenology of mania: evidence for distinct depressed, dysphoric, and euphoric presentations. Am J Psychiatry. 1999;156(3):426–30.
- Swann AC, Janicak PL, Calabrese JR, Bowden CL, Dilsaver SC, Morris DD, et al. Structure
  of mania: depressive, irritable, and psychotic clusters with different retrospectively-assessed
  course patterns of illness in randomized clinical trial participants. J Affect Disord. 2001;67.
  [1-3:123–32.
- 23. Rossi A, Daneluzzo E, Arduini L, Di Domenico M, Pollice R, Petruzzi C. A factor analysis of signs and symptoms of the manic episode with Bech-Rafaelsen Mania and Melancholia Scales. J Affect Disord. 2001;64.[2-3:267–70.
- 24. Hantouche EG, Allilaire JP, Bourgeois ML, Azorin JM, Sechter D, Chatenet-Duchene L, et al. The feasibility of self-assessment of dysphoric mania in the French national EPIMAN study. J Affect Disord. 2001;67.[1-3:97–103.
- 25. Akiskal HS, Azorin JM, Hantouche EG. Proposed multidimensional structure of mania: beyond the euphoric-dysphoric dichotomy. J Affect Disord. 2003;73(1–2):7–18.
- 26. Murphy DL, Beigel A, Weingartner H, Bunney WE Jr. The quantitation of manic behavior. Mod Probl Pharmacopsychiatry. 1974;7:203–20.
- 27. Double DB. The factor structure of manic rating scales. J Affect Disord. 1990;18(2):113-9.
- 28. Serretti A, Rietschel M, Lattuada E, Krauss H, Held T, Nothen MM, et al. Factor analysis of mania. Arch Gen Psychiatry. 1999;56(7):671–2.
- 29. American Psychiatry Association. Mixed features specifier. www.psychiatry.org wDo.
- 30. Vieta E. Bipolar mixed states and their treatment. 2007.
- Muralidharan K, Ali M, Silveira LE, Bond DJ, Fountoulakis KN, Lam RW, et al. Efficacy of second generation antipsychotics in treating acute mixed episodes in bipolar disorder: a metaanalysis of placebo-controlled trials. J Affect Disord. 2013;150(2):408–14.

32. Hirschfeld RM. Bipolar spectrum disorder: improving its recognition and diagnosis. J Clin Psychiatry. 2001;62(Suppl 14):5–9.

- 33. Kawa I, Carter JD, Joyce PR, Doughty CJ, Frampton CM, Wells JE, et al. Gender differences in bipolar disorder: age of onset, course, comorbidity, and symptom presentation. Bipolar Disord. 2005;7(2):119–25.
- 34. Dell'Osso L, Placidi GF, Nassi R, Freer P, Cassano GB, Akiskal HS. The manic-depressive mixed state: familial, temperamental and psychopathologic characteristics in 108 female inpatients. Eur Arch Psychiatry Clin Neurosci. 1991;240(4–5):234–9.
- 35. Gonzalez-Pinto A, Barbeito S, Alonso M, Alberich S, Haidar MK, Vieta E, et al. Poor long-term prognosis in mixed bipolar patients: 10-year outcomes in the Vitoria prospective naturalistic study in Spain. J Clin Psychiatry. 2011.;72[5;72:671–6.
- 36. Diflorio A, Jones I. Is sex important? Gender differences in bipolar disorder. Int Rev Psychiatry. 2010;22(5):437–52.
- 37. Nivoli AM, Pacchiarotti I, Rosa AR, Popovic D, Murru A, Valenti M, et al. Gender differences in a cohort study of 604 bipolar patients: the role of predominant polarity. J Affect Disord. 2011;133(3):443–9.
- 38. Cassidy F, Yatham LN, Berk M, Grof P. Pure and mixed manic subtypes: a review of diagnostic classification and validation. Bipolar Disord. 2008;10.[1 Pt 2:131–43.
- 39. Azorin JM, Belzeaux R, Kaladjian A, Adida M, Hantouche E, Lancrenon S, et al. Risks associated with gender differences in bipolar I disorder. J Affect Disord. 2013;151(3):1033–40.
- 40. Payne JL. The role of estrogen in mood disorders in women. Int Rev Psychiatry. 2003;15(3):280-90.
- 41. Teatero ML, Mazmanian D, Sharma V. Effects of the menstrual cycle on bipolar disorder. Bipolar Disord. 2014;16(1):22–36.
- 42. Vliegen N, Casalin S, Luyten P. The course of postpartum depression: a review of longitudinal studies. Harv Rev Psychiatry. 2014;22(1):1–22.
- 43. Gupta N, O'Brien R, Jacobsen LJ, Davis A, Zuckerman A, Supran S, et al. Mood changes in adolescents using depot-medroxyprogesterone acetate for contraception: a prospective study. J Pediatr Adolesc Gynecol. 2001;14(2):71–6.
- 44. Gibbs Z, Lee S, Kulkarni J. Factors associated with depression during the perimenopausal transition. Women's Health Issues. 2013;23(5):e301–7.
- 45. Freeman MP, Gelenberg AJ. Bipolar disorder in women: reproductive events and treatment considerations. Acta Psychiatr Scand. 2005;112(2):88–96.
- 46. Di Florio A, Forty L, Gordon-Smith K, Heron J, Jones L, Craddock N, et al. Perinatal episodes across the mood disorder spectrum. JAMA Psychiat. 2013;70(2):168–75.
- 47. Vesga-Lopez O, Blanco C, Keyes K, Olfson M, Grant BF, Hasin DS. Psychiatric disorders in pregnant and postpartum women in the United States. Arch Gen Psychiatry. 2008;65(7):805–15.
- 48. Freeman MP, Smith KW, Freeman SA, McElroy SL, Kmetz GE, Wright R, et al. The impact of reproductive events on the course of bipolar disorder in women. J Clin Psychiatry. 2002;63(4):284–7.
- Gottschalk A, Bauer MS, Whybrow PC. Evidence of chaotic mood variation in bipolar disorder. Arch Gen Psychiatry. 1995;52(11):947–59.
- 50. van de Ven AC, Muntjewerff JW, Netea-Maier RT, de Vegt F, Ross HA, Sweep FC, et al. Association between thyroid function, thyroid autoimmunity, and state and trait factors of depression. Acta Psychiatr Scand. 2012;126(5):377–84.
- Ibach B, Poljansky S, Marienhagen J, Sommer M, Manner P, Hajak G. Contrasting metabolic impairment in frontotemporal degeneration and early onset Alzheimer's disease. NeuroImage. 2004;23(2):739–43.
- 52. MacKinnon DF, Zandi PP, Cooper J, Potash JB, Simpson SG, Gershon E, et al. Comorbid bipolar disorder and panic disorder in families with a high prevalence of bipolar disorder. Am J Psychiatry. 2002;159(1):30–5.
- 53. Saunders EF, Fitzgerald KD, Zhang P, McInnis MG. Clinical features of bipolar disorder comorbid with anxiety disorders differ between men and women. Depress Anxiety. 2012;29(8):739–46.

- 54. Hawton K, Sutton L, Haw C, Sinclair J, Harriss L. Suicide and attempted suicide in bipolar disorder: a systematic review of risk factors. J Clin Psychiatry. 2005;66(6):693–704.
- 55. Lopez P, Mosquera F, de Leon J, Gutierrez M, Ezcurra J, Ramirez F, et al. Suicide attempts in bipolar patients. J Clin Psychiatry. 2001;62(12):963–6.
- 56. Rotondo A, Mazzanti C, Dell'Osso L, Rucci P, Sullivan P, Bouanani S, et al. Catechol o-methyltransferase, serotonin transporter, and tryptophan hydroxylase gene polymorphisms in bipolar disorder patients with and without comorbid panic disorder. Am J Psychiatry. 2002;159(1):23–9.
- 57. Akiskal HS. The distinctive mixed states of bipolar I, II, and III. Clin Neuropharmacol. 1992;15(Suppl 1 Pt A):632A–3A.
- 58. Akiskal HS, Mallya G. Criteria for the "soft" bipolar spectrum: treatment implications. Psychopharmacol Bull. 1987;23(1):68–73.
- Akiskal HS, Hantouche EG, Bourgeois ML, Azorin JM, Sechter D, Allilaire JF, et al. Gender, temperament, and the clinical picture in dysphoric mixed mania: findings from a French national study [EPIMAN]. J Affect Disord. 1998;50(2–3):175–86.
- 60. Altshuler LL, Kupka RW, Hellemann G, Frye MA, Sugar CA, McElroy SL, et al. Gender and depressive symptoms in 711 patients with bipolar disorder evaluated prospectively in the Stanley Foundation bipolar treatment outcome network. Am J Psychiatry. 2010;167(6):708–15.
- 61. Kendler KS, Gardner CO. Sex differences in the pathways to major depression: a study of opposite-sex twin pairs. Am J Psychiatry. 2014;171:426.
- 62. Egeland JA. Bipolarity: the iceberg of affective disorders? Compr Psychiatry. 1983;24(4):337–44.
- Rutz W, Walinder J, von Knorring L, Pihlgren H, Rihmer Z. [Is depression in men undertreated? High frequency of sudden, unexpected suicides]. Lakartidningen. 1995;92(42):3893– 4, 9–900.
- 64. Hasin D, Carpenter KM, McCloud S, Smith M, Grant BF. The alcohol use disorder and associated disabilities interview schedule [AUDADIS]: reliability of alcohol and drug modules in a clinical sample. Drug Alcohol Depend. 1997;44(2–3):133–41.
- 65. Miller S, Suppes T, Mintz J, Helleman G, Frye MA. Mixed depression in bipolar disorder: prevalence rate and clinical correlates during naturalistic follow-up in the Stanley bipolar network. Am J Psychiatry. 2016;173(10):1015–23.
- 66. Fellinger M, Waldhor T, Blüml V, Williams N, Vyssoki B. Influence of gender on inpatient treatment for bipolar disorder: an analysis of 60,607 hospitalisations. J Affect Disord. 2018;225:104–7.
- 67. Reinares M, Bonnín Cdel M, Hidalgo-Mazzei D, Undurraga J, Mur M, Nieto E, Sáez C, Vieta E. Making sense of DSM-5 mania with depressive features. Aust N Z J Psychiatry. 2015;49(6):540–9.
- Suppes T, Mintz J, McElroy SL, et al. Mixed hypomania in 908 patients with bipolar disorder evaluated prospectively in the Stanley Foundation bipolar treatment network: a sex-specific phenomenon. Arch Gen Psychiatry. 2005;62:1089–96.



### **Borderline Personality Spectrum**

33

#### Olatz Napal-Fernández

En lo hondo no hay raíces hay lo arrancado

(In the deep there are no roots/ there is the ripped)

Free translation

Hugo Mújica

#### Abstract

People who receive a diagnosis of borderline personality disorder (BPD) find themselves "at the border" in several ways. They play behaviors that society deems inexplicably mad, and they frequently do so in a way that place them at variance with the Western binary stereotype—masculine and feminine—that is, on the border between so-called masculine and feminine behavior. They teeter on the edge of social acceptability.

It is not by chance that this diagnosis is more frequent in women, homosexuals, transsexuals, transgender, etc. in a society in which the concept of the universal "Subject" has been built from the masculine model. Anyone outside of its margins is considered the "Other" and can be labeled unhealthy in a society where the difference has been medicalized.

The feminization of the borderline category is argued by several theories that suggest BPD category as a contemporary successor to hysteria, showing that, like hysteria, this diagnosis has expanded into an over-inclusive and diffuse category.

Another aspect exposed is the large number of BPD patients with histories of trauma (physical, sexual, etc.) and how, sometimes, the symptoms that appear to be grouped under the label of BPD represent patterns of adaptation to trauma.

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The body becomes a "speaking body" (following Foucault's idea); thus, we consider it essential to address the self-injuries experience, not as a sign of specific diagnosis, but as a way of being-in-the-world and in-between-the-world (body in suffering).

Finally, we present some actual theories, which denounce the dominant social norms and the inextricable links of power and their influence in the construction of our identity.

#### 33.1 Introduction

The term "borderline" was first used in 1938 by analyst Adolph Stern to describe patients who appeared more severely disturbed than the neurotics that Freud felt were suitable for psychoanalysis, yet who did not show signs of outright psychosis, placing them "on the borderline between neurosis and psychosis" [1].

These patients appeared to be more profoundly disturbed than those suffering neurotic symptoms, but they could not be classified as psychotic. Stern felt that these patients showed signs of regressing to an early narcissistic state in which they had withdrawn libidinal energy from the outside world and turned it upon themselves. So, these patients showed evidence of preoedipal conflicts having to do with the earliest acquisition of a self, rather than the oedipal conflicts of neurotic patients.

In contemporary psychiatry, the borderline diagnosis appeared in the DSM-III (APA 1980, revisited in 1987), where it was defined as a personality disorder, characterized by a "pervasive pattern of instability of self-image, interpersonal relationships, and mood, beginning in early adulthood and present in a variety of contexts" [2]. A central feature of borderline personality disorder is the appearance of an identity disturbance that is manifested by several life issues such as self-image, sexual orientation, long-term goals of career choice, and types of friends or lovers to have, and the person often experiences this instability of self-image as chronic feelings of emptiness or boredom.

Roth and Fonagy offer this definition of BPD:

The essential feature of this disorder is a pervasive pattern of instability of self-image, interpersonal relationships and mood. The person's sense of identity is profoundly uncertain. Interpersonal relationships are unstable and intense, fluctuating between the extremes of idealization and devaluation. There is often a terror of being alone, with great efforts made to avoid real or imagined abandonment. Affect is extremely unstable, with marked shifts from baseline mood to depression and anxiety usually lasting a few hours. Inappropriate anger and impulsive behavior are common, and often this behavior is self-harming. Suicidal threats and self-mutilation are common in more severe forms of this disorder. [3]

Kernberg's contribution in BPD may be resumed in two trends: (a) the construction of the borderline condition as a defensive ego or personality type, the borderline personality organization; and (b) providing a theory of the roots of the disorder

in early childhood and infancy (the preoedipal period), describing this period, based in object relations theory, the source of the borderline patient's unstable self.

For Kernberg the major difference between the neurotic and the borderline patient is the borderline's lack of a clear sense of identity. The neurotic patient is able to provide a verbal description of self, borderline patients are not able to provide a coherent portrait of themselves, their descriptions are contradictory and incomplete, and the behavior is inconsistent. One essential symptom is "splitting," in which one holds two contradictory perceptions of the self or others as either all good or all bad and is unable to integrate them into a coherent total image. The patient vacillates from one image to the other.

Borderline personality organization is characterized by "immature" ego defense mechanisms, which include "splitting," but also "magical thinking" or superstitions, feelings of omnipotence, phobias, obsessive-compulsive behavior, projection of one's unpleasant characteristics onto others, and "projective identification," in which the person perceives and identifies with the projected characteristics.

This borderland pathological ego structure, for Kernberg, is rooted in the person's earliest childhood, and the object relations theory gives, in this period, the mother a pivotal role in determining the shape of the infant's personality [4, 5].

In 2013 appears the new edition of the DSM-V whose criteria are attached in Table 33.1 [6]:

Throughout its short history, BPD has been a controversial diagnosis [3], criticized for its weighted construction, its inconsistent and unclear meaning, and its uneven, stigmatizing, and punitive application [7].

Studies cite BPD rates of approximately 0.4–1.8% among community samples [8, 9] and 10–25% among clinical samples [10, 11]. Gender differences in the rates of borderline personality disorder (BPD) of approximately three females diagnosed for every male diagnosed have been cited in the most recent edition of the *Diagnostic and Statistical Manual of Mental Disorders* (APA, 2013) [6, 12, 13]. These diagnostic rates and their gender differences have been noted for several other personality disorders as well; for example, both dependent and histrionic personality disorders are said to also be more prevalent among females than males [14].

Some authors suggested six potential biases toward making a BPD diagnosis in women rather in men and reflecting sampling, diagnostic constructs, diagnostic criteria, diagnostic thresholds, application of diagnostic criteria, and assessment instruments [14].

Others suggested that it is possible that differential rates in the diagnosis or prevalence of BPD between genders reflect the true state of affairs, rather than any kind of sex bias at all [15].

In some studies, we found that when men and women were compared in terms of frequency of diagnosis on both the SCID-II and PDI-IV, no significant gender differences emerged; however, two differences were founded between genders when examining endorsement of individual criteria on the scales, specifically it appears that women's responses to the item relating to chaotic and unstable interpersonal relationships while men tended to be rated slightly higher for the criteria related to impulsivity, difficulty controlling anger, and affective instability [16].

# **Table 33.1** Borderline personality disorder criteria according to DSM-5 [6]

# **Borderline personality disorder**

- A. Significant impairments in personality functioning manifest by:
  - 1. Impairments in **self-functioning** (a or b)
- a. Identity: Markedly impoverished, poorly developed, or unstable self-image, often associated with excessive self-criticism; chronic feelings of emptiness; dissociative states under stress
- b. Self-direction: Instability in goals, aspirations, values, or career plans
  - 2. Impairments in **interpersonal functioning** (a or b):
- a. Empathy: Compromised ability to recognize the feelings and needs of others associated with interpersonal hypersensitivity (i.e., prone to feel slighted or insulted); perceptions of others selectively biased toward negative attributes or vulnerabilities
- b. Intimacy: Intense, unstable, and conflicted close relationships, marked by mistrust, neediness, and anxious preoccupation with real or imagined abandonment; close relationships often viewed in extremes of idealization and devaluation and alternating between overinvolvement and
- B. Pathological personality traits in the following domains:
- 1. Negative affectivity, characterized by:
- a. Emotional liability: Unstable emotional experiences and frequent mood changes; emotions that are easily aroused, intense, and/or out of proportion to events and circumstances
- b. Anxiousness: Intense feelings of nervousness, tenseness, or panic, often in reaction to interpersonal stresses; worry about the negative effects of past unpleasant experiences and future negative possibilities; feeling fearful, apprehensive, or threatened by uncertainty; fears of falling apart or
  - c. Separation insecurity: Fears of rejection by—And/or separation from—Significant others, associated with fears of excessive dependency and complete loss of autonomy
- d. Depressivity: Frequent feelings of being down, miserable, and/or hopeless; difficulty recovering from such moods; pessimism about the future; pervasive shame; feeling of inferior self-worth; thoughts of suicide and suicidal behavior
- 2. **Disinhibition**, characterized by:
- b. Risk-taking: Engagement in dangerous, risky, and potentially self-damaging activities, unnecessarily and without regard to consequences; lack of a. Impulsivity: Acting on the spur of the moment in response to immediate stimuli; acting on a momentary basis without a plan or consideration of outcomes; difficulty establishing or following plans; a sense of urgency and self-harming behavior under emotional distress
  - C. The impairments in personality functioning and the individual's personality trait expression are relatively stable across time and consistent across concern for one's limitations and denial of the reality of personal danger
- D. The impairments in personality functioning and the individual's personality trait expression are not better understood as normative for the individual's developmental stage or sociocultural environment
  - E. The impairments in personality functioning and the individual's personality trait expression are not solely due to the direct physiological effects of a substance (e.g., a drug of abuse, medication) or a general medical condition

The basis of diagnostic prevalence alone (75% of those diagnosed with BPD are women) invites us to consider the possibility that it might be a gendered diagnosis. Dana Becker argues that the borderline diagnosis has been "feminized" and that borderline personality disorder has become a new "female malady" for the late twentieth century [17].

One of the main features on the borderline is the patient's unstable, fragmented, or missing self. People deemed borderline are not only placed "on the borders," at the edges of sanity; they are also placed at the very margins of selfhood [18]. Their selves are described as "empty" [19], "dead" [20], "unstable," or "split" among "part-selves" [21], as containing a "defect in the organizing structure of the self" [22], such patients manifest a "blurring of ego boundaries" (confusion between one's own thoughts and feelings and those of others) [23].

Linehan's biopsychosocial model of BPD etiology suggests that the escalated rate of BPD among women is a consequence of several factors, such as escalated rates of sexual abuse among women, invalidating cultural ideals for women, and sexism aimed at girls who fail to be appropriately "feminine" or whose talents are in areas considered to be "masculine," like mechanics. Thus, women are more likely to encounter these forms of invalidation, and because invalidation is a critical factor leading to the development of BPD within Linehan's model, women are more likely to develop BPD in adulthood [24].

Butler critiques the pre-social conceptions of identity and subjecthood and argues about the inseparability of gender and identity. They cannot be separated; to speak about of "selves" necessarily draws one into a consideration of gender. Butler calls into question the neutrality and universality of the notion of "self." Her analysis (a part of the feminist critique of the gendered quality of self) has shown how conceptions of the self or subject are conflated with conceptions of masculine subjectivity, reflecting the experiences, desires, and illusions of this masculine position (Butler 1990). Some authors refer that women have been constructed as "Other," overdetermined by their feminine position in the gender binaries of patriarchal logic [25–27].

Within this binary logic of self and other and of masculine and feminine, the status of feminine identity is unstable, marked by paradox and contradiction. Women are in a representational and experiential double bind, between the traditional essentialist feminine identity, on one hand, and the psychologically defined norm or ideal of healthy, normal selfhood, on the other. Ambiguity and confusion surround this double bind [18].

Men are in minority of patients receiving the diagnosis of BPD, 25–30% of those diagnosed are males [17]. One of the explanations offered for the low numbers of men diagnosed as borderline is that males showing similar traits as borderline women tend to be diagnosed as sociopathic, or as having antisocial personality disorder [28]. According to this view, some male patients may express the same confusion and uncertainty or instability and rage as women but tend to direct their rage toward others, rather than toward themselves (according to Bourdieu's theory in "the male domination"). They become involved with the legal system, rather than the mental health system. In certain clinical populations, such as forensic and prison settings, studies have found high prevalence rates in men. Some works quantified a

BPD prevalence rate of 20% in men on probation or parole while in prisons. Other studies quantified higher rates (27–57%) among violent male offenders [29]. Such data indicate that BPD is not necessarily a rare condition in men and that its prevalence rate varies, being particularly high in those with a forensic history.

The frequently quoted 1:3 male to female ratio quantified for BPD in clinical populations has been contrasted with the reverse ratio of 3:1 quantified for antisocial personality disorder (ASPD), and, for some authors, ASPD and BPD are two disorders that reflect "multifinal" outcomes of a single etiology [29, 30]. Twenty-five percent of patients with antisocial personality disorder also fulfill the criteria for BPD, looking for this fact, Gunderson and Zanarini say, "Sex bias probably prejudices clinicians to overlook the antisocial features of female patients and the dependent, needy (borderline) features of male patients" [31], but other authors disagree with this argument referring that antisocial personality disorder does not include the fluctuating emotions described in BPD and consider that male equivalent of borderlines may be as closer to narcissistic as to antisocial personality disorders [28].

Some works found that men with BPD are more aggressive and impulsive in comparison with women with BPD [32, 33] although some studies did not observe this difference [34]; the discrepancies in the results may be related to the fact that there is a gender difference in physical aggression but not in verbal aggression, anger, or hostility; and there is a gender difference in motoric and non-planning impulsiveness but not in cognitive impulsiveness [33].

Some investigations [35] founded that women are more likely to experience a chronic feeling of emptiness, suicidal behavior, self-mutilation, and affective instability while men are more likely to endorse impulsivity [36]. Others argue that sexrelated differences in BPD are rather small and restricted to a higher probability in women to engage in sexually abusive relationships [37]. In this case, we make the question if it is because the disorder or, nevertheless, because sexually abusive relationships are higher for women in general population.

It's important to draw attention to the fact that a high proportion of people who receive the diagnosis of borderline are said to be gay, lesbian, transsexual, transgender, etc. The question about that is if these people express similar kinds of identity "disturbances" that are said to be characteristic of the borderline patient; or whether this pattern is an outcome of clinicians perceiving and labeling. Some men may escape the label of borderline because most of their expressions of borderline-like behaviors are viewed as appropriate to the masculine gender role, so there are no signs of pathology. Some papers found that men in the general population reported more borderline characteristics than normal women. "It is interesting to speculate that clinicians may consider these characteristics as more congruent with male sex roles and may find them more tolerable in men. Conversely, in women, these traits may be seen as less appropriate to sex role, and therefore women may be more likely to be labeled as having borderline personality disorder" [38]. Men who are diagnosed as borderline are those who deviate from the masculine gender stereotype [18].

In this reflection's line, the results of the work of Silberschmidt et al. are interesting. The authors found that several gender differences consistently found in the

general population are not present in BPD population. There are no differences in aggression, suicidality, substance abuse, panic disorder, or obsessive-compulsive disorder. Gender differences in major depression and post-traumatic stress disorder are attenuated. For the authors, these findings support the conclusion that BPD may diminish normal gender differences. While the literature is full of investigators theorizing that women with BPD "internalize" while men "externalize" BPD pathology, the data of this work suggest that the gender-related differences in BPD are small and often not even as great as the differences in the general population. They finish the article not asking how women and men with BPD are different but asking "why aren't they?" [39].

#### 33.2 Gender and Madness: A Historical View

Tracing the history of the modern concept of madness back to the pre-modern discourse of witchcraft, some authors describe how this discourse positioned as "witch" and "outsider" the woman whose deviant behavior threatened social norms [17, 40]. A woman positioned in this way could be punished for her deviancy, and the threat that she posed to social norms could be controlled and neutralized. In the movement from this pre-modern, religious worldview to the current scientific (rational paradigm of modernism), Foucault described the emergence of a scientifically determined and controlled concept of insanity [41]. This reflects the change from "witchcraft" as the primary discourse applied to women's deviancy, to the appearance of the concept of "hysteria" in the nineteenth century. Hysteria became the signifier par excellence that positioned women as pathological and irrational in the last two centuries.

In her historical study of women and madness, Elaine Showalter has shown the symbolic association of madness with femininity in the history of Western society, which the author attributes to "a cultural tradition that represents woman as madness and that uses images of the female body to stand for irrationality in general" [42]. The neurologist Mitchell SW described the hysteria like the gnoseologic limbo of all unnamed female maladies. It was as well called *mysteria* [43].

Showalter argued that hysteria is not, therefore, an individual pathology; hysteria was a response to powerlessness arising from a contradictory expectation about feminine behavior. Chesler coined the term "double bind" to describe the processes by which women can be pathologized both for conforming to and for failing to conform to expectations of feminine passivity [44]. Women labeled "hysterical" were, on the one hand, unable to meet social norms and, on the other, unable to release themselves from the force of these norms, since the norms had been internalized. Hysteria undermined the norm of female refinement in two ways: directly, through the "fits" or unseemly emotional outbursts to which hysterical individuals were prone and, second, through debilitating physical symptoms that rendered the individual helpless, in a caricature of feminine delicacy [45].

"The more women became hysterical, the more doctors became punitive toward the disease; and at the same time, they began to see the disease everywhere... until

they were diagnosing every independent act by a woman as 'hysterical'' [42]. Hysteria became an epidemic, with women accepting their 'illness' and at the same time 'finding a way to rebel against an intolerable social role' [17]. "Sickness became not only a way of life but also a means of rebellion, and 'medical treatment, which had always had strong overtones of coercion, revealed itself as frankly and brutally repressive" [42].

There has been an increasing recognition that the label "borderline" may function in the same way that "hysteria" did in the late nineteenth and early twentieth century as a label for women. According to Jimenez MA, "the similarities between the diagnoses of borderline personality disorder and hysteria are striking. Both diagnoses delimit appropriate behavior for women, and many of the criteria are stereotypically feminine" [46]. Several authors have made reference to this association [17]. "Borderline disorder is a more aggressive version of hysteria," the distinction is the inclusion of anger and other 'aggressive' characteristics in borderline personality disorder, such shoplifting, reckless driving, and substance abuse. "If the hysteric was a damaged woman, the borderline woman is a dangerous one" [46]. According to a social construction model, BPD (like witchcraft and hysteria) is constructed as a deviation, in this case from the concepts of rationality and individuality [47].

The gendered consequences of the psychiatric preoccupation with "rationality" have been well explored in feminist theory: women are "typically situated on the side of irrationality, silence, nature and body, while men are situated on the side of reason, discourse, culture and mind," says Showalter [42] in the same line of argument of Bourdieu [27]. The consequences of this approach are evident in the psychiatric response to "borderline symptoms": the BPD diagnostic depends upon a psychiatrist judging whether emotions are appropriate/healthy with the reference to the norm of "rationality." Both anger and fear of abandonment can be judged to be inappropriate, as opposed to being understandable in the context of a person's history of being violated or abandoned [47].

In the case of BPD, the diagnoses can be applied to women who fail to live up to their gender role because they express anger and aggression. Jimenez argues that "this successor to hysteria, in depicting the borderline patient as a 'demanding, aggressive and angry woman,' and in highlighting as one of its features 'promiscuity' in sexuality, is reflective of contemporary moral judgments of normal female behavior" [46]. At the same time, the diagnosis is also given to women who conform "too easily," by internalizing anger and expressing this through self-focused behavior such as self-injury [47]. Wirth-Cauchon discusses how "women diagnosed with BPD are representing society's contradictions about femininity, with the double-bind of being denigrated for both emotionality and rationality, for active sexuality and for passive servicing of men" [18].

And these contradictions are also held in the therapeutic space as we can see, for example, in Samuels who writes that the borderline patient can create a fascination because the "ecstasy' of a madness that maintains a grasp on 'reality': intense affect, depersonalization; impulsive behavior, sometimes against the self, brief psychotic experiences; disturbed personal relationships, sometimes exceedingly intimate and sometimes distant. This could be the profile of a saint" [48].

On the other hand, the language describing mental disorder may be pejorative, as it frequently in definitions of borderline personality disorder [24, 49]; this lays "the groundwork for a view of patients that is critical of women rather than compassionate toward them" [17].

#### 33.3 Social Causation of Distress-Trauma

Traumatic experiences are often reported among individuals with BPD and frequently include multiple forms of traumatization such as physical or sexual; these stressful events can contribute to different burdensome symptoms (such as re-experiencing, avoidant behavior, and increased arousal) of post-traumatic stress disorder (PTDS) [50].

The document "women's mental health: into the mainstream strategic development of mental health care for women" [51] acknowledges that many women with a diagnosis of BPD have a history of trauma. At least 70% have been sexually abused as children [52]. Some studies say that 88% of people diagnosed with BPD had experienced abuse: for 80% this was childhood abuse; for 70% this was early sexual abuse [53]; this can lead us to think childhood sexual abuse to be a powerful example of the social causation of distress with relation to BPD. However, the history of societal responses to childhood sexual abuse is a history of denial and distortion, and we can found that also in psychiatry's denial of etiological relevance of abuse, trauma, and oppression for psychological distress [47]. Freud chose to conceal revelations of childhood sexual abuse by women with the diagnosis of hysteria, by presenting them as memories of fantasies, rather than memories of actual experiences [54]. In consequence, the result was that the extent and impact of childhood sexual abuse was silenced for a century and continues to be.

As a result of this, some authors consider the diagnosis of BPD a powerful new manifestation of this tendency to deny the extent and impact of childhood sexual abuse, neglect, or emotional abuse [47]. Some papers describe how the "symptoms" which define BPD can be better understood as adaptive reactions to early relational traumas. They suggest that it is much more helpful to understand people's behavior as an attempt to ensure "some measure of mastery, control and alliance with others, in the face of trauma, helplessness and inner vulnerability" that as the result of "a disorder of the personality, that is, solely as an internal deficit" [55–57].

The comorbidity of BPD and PTDS is frequent, yet not well understood. The prevalence pf PTDS has been reported to be as high as 54% among individuals with BPD [50]. Lifetime comorbidity of BPD and PTDS is associated with more dysfunction than either individual disorder or childhood sexual abuse playing an important role in the development of this comorbidity [58].

The symptoms of post-traumatic stress disorder (PTSD) overlap considerably with symptoms of borderline personality disorder and focus on unstable emotions, behavior, and relationships [28]. Trauma exposure and comorbid PTDS are frequently being missed in this population, and the clinical presentation of these two

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disorders can easily be confused [50]. This may be due to similarities in the core domains of affect regulation, impulse control, interpersonal relationships, reality testing, and self-integration across BPD and PTDS [58]. Absence of comorbid PTDS among BPD is related to faster time to remission, while a history of sexual victimization is related to a less favorable course of PTDS with a lower likelihood of remission and a higher risk of recurrence of PTDS [50]. Also, cumulative trauma has been suggested to predict current PTSD [59]. Sexual trauma as compared to other types of trauma has been proposed to be related to more severe PTSD [60]. In women with BPD, poly-traumatization was not significantly related to PTSD diagnosis as compared to single traumatization, whereas sexual victimization was significantly more prevalent in women with PTSD diagnosis and BPD, as compared to other types of traumatic events [50].

Herman considers the BPD's behaviors as a form of adaptation to trauma, with the most prominent aspect being the "disturbance in identity and relationship." Borderline is the most prominent psychiatric diagnose (with somatization disorder and multiple personality disorder) given to people suffering from childhood trauma. The symptoms were attributed in the last century to hysteria. Given the range of responses to trauma, Herman argues that even the category of PTSD is too narrowly defined, focusing on singular events such as combat, disaster, and rape, thus missing the more complex picture of prolonged abuse. She proposes a new category to encompass the spectrum of conditions related to trauma: "complex post-traumatic stress disorder" [61]. This author criticized Otto Kernberg because this one minimized the importance of sexual abuse on the appearance of some of the symptoms of the borderline disorders. For Herman, the borderline's relations to other people can often be understood as strategies of adaptation held over from past relations with abusive caretakers:

Why would a child fail to integrate idealized or terrifying images of his/her caretakers? The reason would have to be either constitutional or adaptive. Splitting is adaptive. Children must preserve some sense of connection at any cost, in this case by walling off the image of the abusive figure from the positive one. I think they do so in a state-dependent way, flipping between modes of affection and terror that accurately reflect their environments. They grow up constantly scanning their interpersonal environments to see if they're safe, reading subtleties of expression, posture, gesture, and so forth in an almost uncanny way. But if you ignore the original reason for this behavior, it looks perverse, incomprehensible, and ultimately pathological. [28]

For Herman, trauma provides comprehensibility to the symptoms expressed by people diagnosed borderline. The patient's instability becomes understood as a response to an external event, rather being rooted in a character or personality disorder. With the label "borderline personality disorder," there is a risk of losing narrative comprehensibility, placing the patient's symptoms within a scientific-medical frame of character pathology.

And yet while sexual and physical abuse is a major factor, it does not fully account for the predominance of women diagnosed as borderline, since not all borderlines have histories of childhood abuse and it happens in 20–40% of women diagnosed as borderline [17].

Sexual abuse is more prevalent in women than in men. However, the fact that men show a greater reluctance and difficulty to relate these experiences may have an influence on the lower ratio of men, as (in terms of Bourdieu's *habitus*) they would not "live up to what society has imposed on them as men" but quite the opposite, they would be the "dominated" within the "masculine dominance." Needless to say, if the authorship of such abuses belonged to women.

#### 33.4 People on the Borders

Western representational systems stand in a precarious and unstable place in relation to the humanist ideal of a generic, neutral, universal "subject" [62]. Some authors consider that women are represented as Other to this ideal of the universal subject.

Lévi-Strauss showed that in cultures built on gift exchange, women (and other valuable gifts as food, words, names, tools, powers, etc.) [63] are the most precious gifts within the basic exchange in marriage. The exchange takes place between kin groups. For Lévi-Strauss, women become central as exchange to the foundation of culture. A woman in this exchange assumes the status of gift, object, and not that of subject who exchanges. Thus women are located in the interstices of social exchange, serving as the medium of exchange between subjects. The position of woman function as (according to Butler) "a relational term between groups of men; she does not have an identity, she reflects masculine identity precisely through being the site of its absence" [64].

This ambiguous position is a "stress point" in the cultural logic, a place where meaning is mobile and shifting, thus revealing the instability of the cultural order. Jane Gallop comments on this dual status of women as both subject and object [65]. According to Bourdieu who describes the hierarchical relation through the oppositional binarism (outside/inside, public/private, objective/subjective, culture/nature, political/emotional, etc.) [27], the identity is defines through difference.

Susan Bordo analyzes Descartes's stance, in which the senses of the body are ignored in favor of pure objective reason, resulting in the Cartesian experience of self as inwardness ("I think, therefore I am") and the sense of distance from the "not-I" [66]. Women become apprehended as part of the denied separate world, "she is the 'Other", in Beauvoir's words [25], but for Irigaray, the female sex is not a "lack" or an "Other" that immanently and negatively defines the subject in its masculinity. On the contrary, the female sex eludes the very requirements of representation, for she is neither "Other" nor the "lack" [64]; the feminine is not a negatively defined derivative or opposite of masculinity, but another version of the same masculine image. Women are defined as the derivative of the subject.

Kristeva developed the concept of the "abject" for denominate that which is excluded from the body in order to demarcate it as a bounded and homogeneous entity. Butler describes the "abject" "that which has been expelled from the body, as excrement, literally rendered 'Other'". The construction of the 'not-me' as the abject establishes the boundaries of the body which are also the first contours of the

subject [64]. Butler applies the concept "abjection" to foreground society's exclusion of certain social identities in order to maintain the illusion of the dominant boundaries and coherence, self-identical subject [67]: "it is at once setting of a boundary, and also the repeated inculcation of a norm"; and such instances of social boundary marking "contribute to that field of discourse and power that orchestrates, delimits and sustains that which qualifies as 'the human'" [64].

Grosz arguments that "the 'Abject's location is in the borderline between inner and outer, self and not-self, that is threatening, because it remains irreducible to either subject/object, or inside/outside." "The Abject necessarily partakes of both polarized terms but cannot be clearly identified with either. The borderlines states, functions and positions are considered as danger, sites of possible pollution or contamination. That which is marginal is always located as a site of danger and vulnerability" [68].

#### 33.5 The Description of BPD

Do I contradict myself? Very well, then I contradict myself, I am large, I contain multitudes

Walt Whitman

BPD is said to be defined by instability: "it not only causes instability, but also symbolizes it" [28], instability in mood, self-image, relationships, and feeling of emptiness or rage.

One diagnostic criterion for BPD pertains to a disturbance in "identity." Indeed, some authors have argued that identity disturbance, along with unstable relationships, are at the core of "borderline pathology" [69].

In DSM-III, identity disturbance was operationalized as an "uncertainty about several issues such as self-image, gender identity, long-term goals or career choice, friendship patterns, values, and loyalties." In DSM-III-R, it was described as an "uncertainty about at least two of the following: self-image, sexual orientation, long-term goals or career choice, type of friends desired, [or] preferred values." In DSM-IV-TR, it was simply characterized as a "markedly and persistently unstable self-image or sense of self." And in DSM-V, it is characterized by markedly impoverished, poorly developed, or unstable self-image, often associated with excessive self-criticism, chronic feelings of emptiness, and dissociative states under stress [6].

#### 33.5.1 Fragmented Selves

Showalter says that it's important in the analysis of borderline narratives the conception of a female subjectivity split between outward appearance of the body as object and inner subjecthood [42]. She interprets this split as an exaggeration of

women's "normal" state, citing the art historian John Berger, who maintains that a woman's psyche is divided in two by virtue of her need to be simultaneously both actor and observer. He says of the woman:

She is almost continually accompanied by her own image of herself. Whilst she is walking across a room or whilst she is weeping at the death of her father, she can scarcely avoid watching herself walking or weeping. From earliest childhood she has been taught and persuaded to survey herself continually. As so she comes to consider the <u>surveyor</u> and the <u>surveyed</u> within her as the two constituent yet always distinct elements of her identity as a woman. [70]

Wirth-Cauchon refers how Showalter sees poet Sylvia Plath's autobiographical fiction *The Bell Jar* as expressing in complex ways these conflicts and splits, and note that the heroine in the novel, *Esther*, is "split between the feminine and creative selves." Esther believes that "motherhood and writing are incompatible. Esther's sense of an absolute division between her creativity and her femininity is the basis of her schizophrenia." "The analysis of madness as an exaggeration of the cultural double binds of feminine identity to analyze the fragmented self depicted in the borderline narratives" [18].

According to this author (Wirth-Cauchon), we will use the same classification/description for these fragmented selves:

#### 33.5.1.1 Mask Self

The themes of artificiality and superficiality frequently appear in the borderline case narratives. The patient expresses feelings of artificiality or falsity often accompanied by sensations of emptiness and numbness. "This is described as a superficial, surface mask or person that is a kind of empty adaptation to the surroundings" [18].

Sometimes these patients try to have with the other a closer relation, relying not on others to give them a "setting and pulse," but on fragmentary feeling sensations to "anchor" their identities. The "false self" is created to alienate the horror of feelings of inner emptiness or deadness. Sometimes, the physical feeling (pleasant or unpleasant) can become a kind of anchor point to the external world, providing a reference of "some" existence in the experience of a large internal void.

#### As If Personality

Helene Deutsch described a group of women patients who appear to exhibit a superficiality and inner emptiness in their personalities, the *as if* personality. Such persons appear to be "normal" yet, on closer observation, lack warmth or depth: "It is like the performance of an actor who is technically well trained but who lacks the necessary spark to make his impersonations true to life. The "as if" personality shows a "completely passive attitude to the environment with a highly plastic readiness to pick up signals from the outer world and to mold oneself and one's behavior accordingly" [71]. In the place of a personality, there is only imitation of others, identification with the environment that facilitates "good adaptation" to the world without depth or inner life. Deutsch says that "if it is a woman, she seems to be the quintessence of feminine

devotion, imparted by her passivity and readiness for identification. The lack of real warmth brings such an emptiness and dullness to the emotional atmosphere that the man as a rule precipitously breaks off the relationship" [71].

The author described the "as if" personality "as showing a completely passive attitude to the environment with a highly plastic readiness to pick up signals from the outer world and to mold oneself and one's behavior accordingly." The level of superficiality that such patients showed, "It's like the performance of an actor who is technically well trained but who lacks the necessary spark to make his impersonations true to life. All their experiences can be based on identifications and... so many identifications that their conduct can appear erratic. They can be considered 'crazy' by those who know them" [72].

Deutsch believes that the "as if" personalities represented a phase leading up to the onset of schizophrenia; they are not accepted forms of neurosis, and they are too well adjusted to reality to be called psychotic.

Hoch and Polatin used the concept "pseudoneurotic schizophrenia" to refer some patients who showed a deeper level of anxiety and a wider variety of symptoms than the neurotic. Like Deutsch's, their patients were predominantly women. They describe patients whose symptoms include "ambivalence," which is "not localized, but it is diffuse and widespread involving the patient's aims, the social adaptation and sexual adjustment"; "polymorphous anxiety"; and a combination of the symptoms of neurosis that they call 'pan-neurosis' [73].

#### 33.5.1.2 Lost Self

Yalom (in a work coauthored with his patient "Ginny Elkin") [74] edited a book jointly produced, with both Yalom and Elkin writing the post-session reports. It was an agreement between them, and Elkin wrote the sessions as payment for therapy.

Yalom wrote: "because of her ego boundary blurring, her autism, her dream life, the inaccessibility of affect, most clinicians would affix to her a label of 'schizoid' or, perhaps, 'borderline'... in the group therapy sessions she's ethereal...a haughty but self-conscious amusement at the whole proceedings...never fully her energies, alternated between being someone who was extraordinary sensitive and reactive to others, to someone who simply was not there at all'. [74]

Elkin wrote: "...although I did occasional "great" work, I like nothing better than to be a human sundial, a curled up outdoor nap[...]my qualifications dripped like Dali's watch, as I was tempted toward everything and nothing...I react to someone rather than act firs, they put me in a place, set my borders and limits...I know my problem has something to do with suspension of action and feeling...I just shop a lot of attitudes and feelings without buying any...I only pose, a model for my shadow, a shadow for my silhouette".

In this case, we can see the mutable meaning of the borderline label, simultaneously close to, and different from, psychosis. It seems also the patient like a marginal presence that refuses to be integrated within the group, being inaccessible and placing herself out of the bounds of normality, without being declared psychotic. She is unable to get a fix on her desires and looks like she's passively watching life pass, she's unfocused, and passively respond to the needs of others [18].

#### 33.5.1.3 Repressed Self

Flax argues that, in some cases, the "core self" is split between an outward false self that conforms to the feminine role and repressed, an autonomous self that which expression is "forbidden" in contemporary Western culture. The borderline's symptoms are expressions of confusions and contradictions faced by women as each of these parts of the self-fight for expression [18]. Jane Flax describes this duality of self in women:

My clinical experience and reading convince me that the repressed is gendered in the sense that women in our culture tend to repress distinctive aspects of the self which are bound up with autonomy and aggression. One dimension of what is repressed is women's non-object related ambition and interest in exerting various sorts of mastery: interpersonal, intellectual, or creative. Both men's and women's sense of gender and the self partially grow out of and are dependent upon the repression of women's desire and ambition. Both genders maintain an active interest in forestalling or prohibiting the return of this repressed material (Flax J. 1986. "Remembering the selves: is the repressed gendered?".

Michigan Quarterly Review 26: 92–110) [75].

Accordingly, Wirth-Cauchon say that the construction of the self as feminine creates a double bind; on one hand, they must suppress their "non-feminine" aspects: autonomy and aggression. On the other hand, they must disavow their feminine embodiment: "In order to be valuable persons worthy of self esteem, women must control the body and access to it. The world of thought and action is the world of men; to enter it women must leave their distinctively female bodies and sexuality 'outside'. One cannot be both sexual, embodied woman and an esteemed thinker and effective actor in the world" [18].

Flax argues that "in women, 'social self' predominate at the cost of the mutilation or denial of the other selves, sometimes, the social self is the part of the self that women are usually praised for—it strives to satisfy the needs of others; it is capable of empathy; it desperately wants and needs interpersonal interactions... and one of the 'repressed selves can be the 'sexual self'" [75]. Flax pays attention into cultural prohibitions and repressions and their psychic and bodily costs for women (Bourdieu's *habitus*).

#### 33.5.1.4 Double Self

And in the opposite side, we can find the alternate personality who, continuing with the "sexual self," for example, can perform sometimes the self-described before (more passive, reclusive, etc.) and in other times emerges like an alternate personality, seductive, dark, hypersensual, reproducing the cultural split between passive femininity and "forbidden" sexual autonomy, "the bitch" (with another voice, more authoritative, forceful). Yalom described the case of Marge in "Therapeutic Monogamy" [76] that illustrate an alternate personality with the previously mentioned features and where the split self can be understood as the embodiment or personification, in exaggerated form, of the dual image of women in Western perception, a duality that makes the passive and subordinate self irreconcilable with the powerful, hypersensual and sexual, and self-assertive self. Those aspects are split off and embodied in another person.

We can consider this as a rebellion of self against the imposition from the sociocultural environment (Bourdieu's *habitus*) of the dichotomist identity of women. The ultimate revenge would be the reappropriation of hyperfemininity and the experience, in an integrated manner, the female body "in evidence," the empowerment of the "perra" ("bitch") [77].

#### 33.5.1.5 Interrupted Self

Sometimes the patients give descriptions of depersonalization, numbness, and emptiness. Susanna Kaysen, a woman who was hospitalized for nearly 2 years in McLean Psychiatric Hospital, describes some perceptions that contextualize on "the ever-shifting borderline that like all boundaries beckons and asks to be crossed." Kaysen's memoir uses some spatial metaphors to describe the blurred border between sanity and madness, naming the area of madness the "parallel universe": "There are so many of them: worlds of the insane, the criminal, the crippled, the dying, perhaps of the dead as well. These worlds exist alongside this world and resemble it, but are not in it" [78]. She slips through one of the "perforations in the membrane between here and there."

She also narrates an altered perception of herself and her own body, describing a profound alienation from her body and fight against a sense that she does not exist as a flesh-blood person. She bites and scratches the body (the hand) to "try to get to the bottom of this; I wanted to see that my hand was a normal human hand, with bones" [78].

Susanna describes her emptiness like a response to her lack of fit to the narrow roles society offered white middle-class privileged girls. The feelings of inadequacy (unfitness) mixed with her resistance to these roles. She describes that her madness is a form of resistance.

As far as I could see, life demanded skills I didn't have. The result was chronic emptiness and boredom...Emptiness and boredom: what an understatement. What I felt was complete desolation. Desolation, despair and depression...

My ambition was to negate. The world, whether dense or hollow, provokes only my negations. When I was supposed to be awake, I was asleep; when I was supposed to speak, I was silent; when a pleasure offered itself to me, I avoided it. My hunger, my thirst, my loneliness and boredom and fear were all weapons aimed at my enemy, the world...All my integrity seemed to lie in saying 'NO', it was a very big NO-the biggest NO this side of suicide. [78]

# 33.6 At the Border: Dependency and Fear of Abandonment, Anger, and Regulation of Emotion

Locura es la lógica estúpida de la vigilia que insiste en Que la identidad se sostiene a lo largo del tiempo y las desdichas. Como si yo, sin vos, fuera la misma persona

(Madness is the stupid logic of wakefulness that insists that identity is sustained over time and misfortunes/ As if I, without you, were the same person) Free translation

Ana María Shua [79]

Many of the symptoms listed in the BPD diagnosis are contents of the difficulties that some individuals have in meeting their dependency needs and expressing their anger. Those are related to the difficulty tolerating aloneness, engaging in self-destructive behavior, and proneness to outbursts of rage. Many BPD symptoms are severe manifestations of the problems commonly reported by "normal" women [17].

#### 33.6.1 Dependency and the Fear of Abandonment

The term *dependent* has been used in a variety of ways: "to describe a need state (longing, oral needs), an affective state (feelings of helplessness, neediness), and even a personality trait (passive-dependent). A fixation at the oral or dependent stage signifies a failure on the adult's part to have attained maturity" [80]. Westkott points out, "ironically, female dependency is the developmental consequence of the historically created adult male dependence on women's physical and emotional caretaking" [81].

Becker said that in a society in which many women encouraged "to suppress anger and placate those on whom they depend, it is not difficult to mistake social learning for intrapsychic phenomena and thereby to end up equating 'over-dependency' with mental illness" [17], in the same significance that the *habitus* of Bourdieu.

Stiver [80] differs dependency from the boundary confusions and fear of loss of self experienced by those whose wish to merge with another that results from a lack of cohesive self. The trend toward merger occurs not because of a failure to separate but because of an inability to remain connected with others while asserting a distinct sense of self [82]. "This constitutes, therefore, a failure of connectedness and not a failure of autonomy. Even if people define themselves in relation to others, they must have some sense of the 'part' they are in the relation to the 'whole' in order to achieve interdependence in relationship" [17].

The ability to make themselves known through the assertion of their needs is difficult for the individuals who feel themselves to be the most unworthy and the boundary between assertiveness and aggression may be particularly ill defined for women who do not feel they have the right to make demands to others, creating a predicament potentially fraught with anxiety and guilt. [83]

Sometimes, dependent patients bileeve that they are worthless and they manifest this feeling hating the own body. They displace the real feeling to the body and build, in this way, their true self. Despite what they see as their real self, they compose another, idealized, self, made up of stereotypical and abstract feminine (or masculine) characteristics. In this way, they have unwittingly achieved the internalization of culturally prescribed notions of femininity [17].

Karen Horney [84] said that a dependent woman literally lives "in the eyes of others," concerned with how others respond to her and judge her, "watching others, watch her." If she exists only in the eyes of others, she finds difficult to be alone; she

only has a self if she is interacting with others. For her, "being alone means both the loss of identity and the proof of being despicable, she may seek out the company of others with a compulsiveness that disregards their needs for privacy" (p. 160). Their vulnerability to criticism, disinterest from the others, or to disagreement makes any of these feel like an extreme attack. Because she is dependent on those who might mean her harm, her ability to discern harmful or abusive conditions is compromised, and she deals with such conditions by alternating between accusing the other and accusing herself [84].

#### 33.6.2 Anger

Golpeando la puerta De la casa vacía No para que me abran Para escucharme llamado

(Knocking on the door/Of the empty house/Not for me to be opened/To hear me calling) Free Translation

Hugo Mújica

Dysregulated anger and its behavioral manifestations such as physical fights are among the defining BPD criteria [85].

Adolescent girls soon discover that expressing anger may expose them to criticism and isolation. The experience of anger itself can bring with it a sense of separateness, difference, and aloneness [86]. Depending upon the strength of the inhibition against its direct expression, anger can take forms that range along a continuum, one pole of which is self-destructive behavior [81]. The suppression of anger results in both frustration and inaction, producing a sense of weakness and a lack of self-esteem—further contributing to a sense of unworthiness and inferiority that, in turn, generates more anger. Women often report feeling filled with unwarranted, irrational anger, and although this description does not relay an accurate picture of their psychological situation, it is one "that the external world—so-called reality—is only too ready to confirm, because any anger is "too much anger in women." Indeed, the risk of expressing can appear grave and disorganizing. All this can end in a kind of self-fulfilling prophecy" [87].

Aggression may be defined as any behavior directed toward another individual with the intention to cause harm [88]. Studies have repeatedly found more aggressive responses in aggression scales in patients with BPD compared to healthy individuals [89]; however, the results of studies of gender differences in aggression among BPD patients have been inconsistent: some studies indicated that men are more aggressive and present higher level of impulsivity in comparison with women, while others did not find a difference; however, male and female BPD patients did not differ in their aggressive responses. Findings reporting more verbal aggression in female subjects scoring high on BPD traits than their male counterparts emphasize the importance of differentiating between specific forms of aggression [33].

Men with BPD are more likely to have comorbid narcissistic, antisocial, paranoid, and schizotypal personality disorders, alcohol and substance use disorders, but less likely to have dependent and obsessive-compulsive personality disorders compared to women with BPD [33].

"Too much is made of 'borderline' anger and hostility, even though other emotions—sadness, anxiety, panic, shame, guilt, humiliation, and fear- are present for 'borderline' women in great measure" (Linehan 1993) [24]. Whether much of what is considered "borderline" behavior is seen to be associated with anger seems to depend on who is doing the observing. "Inferring anger and aggression from "borderline" behavior rather than desperation and fear may well be related to the clinician" (*Linehan 1993*) [24]. Many women (and some men also) tend to express anxiety as a secondary elaboration of suppressed anger. When they are confronting situations that are genuinely angering, experience acute anxiety because they are not able to permit themselves to express the anger directly or because the suppression of anger has become so automatic that they cannot feel the anger at all [17].

We can see, in fact, that often women (or people around them) feel the necessity to justify their anger by the hormones in the premenstrual period, trying to deposit the cause in an external factor, biological (according the concept of "nature" own women in Bourdieu) because they do not feel with the right to be able to express this emotion as own, genuine.

Macaulay points out that the psychoanalytic and psychodynamic schools have long endorsed a view of angry women as women who have "identity problems are rejecting their proper sex role, are being poisoned by bottled-up anger, or are being destroyed by aggression turned inward-or all of these at once" [90].

#### 33.6.3 Regulation of Emotion

In Linehan's view, BPD is in the main, a disorder of emotional dysregulation, and most borderline behaviors stem either from attempts to regulate intense emotion or are the results of affect dysregulation. "Emotional dysregulation is both the problem the individual is trying to solve and the source of additional problems" [24]. Linehan's theory of the etiology of BPD symptoms rests upon biological as well as social learning foundations; however, some authors defend that social learning, in itself, can help to create emotional vulnerability. Adaptation is a continuously transforming experience; faults of adaptation at one point affect how the individual adapts the next phase.

#### 33.7 The Body Talks

Nichter proposed the concept "idiom of distress" in 1981 to refer to "socially and culturally resonant means of experiencing and expressing distress in local worlds." "Idioms of distress communicate experiential states that lie on a trajectory from the

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mildly stressful to depths of suffering that render individuals and groups incapable of functioning as productive members of society" [91].

The symptoms of each of the diseases (hysteria, anorexia, and bulimia and BPD) become, in itself, a text converted in a body. It's attributed to the body an increased meaning in relation to the ideals that are projected on the women, with a social, economic, and political meaning (also emotional) that varies depending on the rules that determine the construction of gender in each historical period. In her analysis of "female maladies" such hysteria, agoraphobia, and anorexia, Bordo suggests that the symptoms of these disorders may be read as literally of women's social situation, the symptoms of these female maladies are politically symbolic: loss of mobility, loss of voice, inability to leave the home, feeding others while starving self, taking up space, and whittling down the space one's body takes up, all have symbolic meaning, all have political meaning within the varying rules governing the historical construction of gender. Bordo argues that these women can be viewed as unconsciously protesting the constraints of gender roles through their bodies, rather than through verbal articulation. Their bodily symptoms therefore can be read as signs of women's subjectivity and social position [66]. Romanyshyn provides a perspective for an interpretive reading of symptoms as signs of culturally excluded meanings, symptoms are carriers that the dominant culture would deny or repress. "A symptom as a way of ignoring or forgetting something is also a way of preserving or remembering it" [92].

Describing the feminine disorders such as post-traumatic stress disorder, anorexia-bulimia, and borderline personality disorder, Griggers reads them as exaggerated signs of a more widespread social dysfunction. The author focuses in particular on dissociation, a common symptom in borderline personality disorder. Griggers' dissociation in women signifies not simply individual women's suppressed memories, but the suppression and denial of historical memories of a circulating social violence. The symptomatic resurfacing of these memories in the form of numbness, states of depersonalization, or self-mutilation is frequently managed through psychopharmacology that aids in viewing such symptomatic memories as only individual rather than social in origin. Griggers' cultural analysis helps to reconnect these individual women's symptoms to their social sources [93].

The symptoms that come to be commonly grouped together under the borderline label-fragmented or unstable identity, feelings of emptiness or numbness, depersonalization, and self-mutilation may be meaningfully understood as exaggerated or extreme forms of some of the cultural contradictions of gender in late modern society, as fault lines of a cultural order in which the contradictions are visible in the moment of breakdown of the feminine subject.

People may find their "efforts to be heard and truly listened to intensely frustrating when the other person seems emotionally impervious. The result is often an escalation of intense feelings with increased loss of focus and diffusion of intense affective expression" [80].

#### 33.7.1 Self-Destructiveness

\*(To complete the information in this section we recommend you to consult the chapter "Live instinct and gender").

#### 33.7.1.1 Self-Injury

Es quitar costra
Tras costra sobre nunca
Sangrar
Es rasguñar espejos
Con las uñas mordidas
¿por qué creerme más mi sangre
Oue mis dedos?

#### Hugo Mújica

How do you feel? Alive. Real. Calm. Satisfied. You smear the blood around. It's sick, but the blood feels real, feels human, feels good! At the same time, you feel the pain, you deserve the pain. You tell some people. They say you are manipulative, attention seeking. You believe it. Only serves to make you feel worse. Some people think you're sick, you're weird. One or two may understand, but they're still wary, still shocked by it. Some think you are suicidal. You're not. [94]

The anthropological theory of the body discussed the self-injury from two theoretical frameworks:

- (a) Outside-in theories (the body in the context of the culture): Interpreting the symbolic meaning of the self-injury into the paradigm within the body as a metaphor for the paradigm in which the body is the metaphor of the body-self-social.
- (b) *Inside-out* theories (the body as subject—perceived): incorporating the emotional dimension (phenomenological) [95].

The self-injuries have relation with three concepts:

- (a) The embodied self.
- (b) Embodied emotions.
- (c) Objectified body.

Many people diagnosed as having BPD drink too much, shop too much, have eating problems, and/or engage in sexually promiscuous behavior; these behaviors are more likely to be viewed as variants of "normal" behaviors, whereas cutting, burning one's skin, or trying to kill oneself are not [17].

Self-injurious behavior (SIB) may take the form of self-mutilation through cutting, burning, or others; risk-taking behavior that could lead to self-harm; impulsivity in the form of substance or food abuse; or suicide attempts, etc....the different forms of self-injury, chronic self-mutilation is unarguably the behavior most readily recognized as "borderline," even though it is by no means restricted to the borderline patient [96].

SIB can become a central means by which borderline clients give expression to separation/abandonment conflicts [97] and relieve the cumulative tensions arising from the struggle for expression of anger and other emotional needs [96, 98]. Cutting the body may be conceived of literally as making an opening through anger, tensions, and anxiety, and a sense of badness can escape. These emotions, "often accompanied by feelings of powerlessness," affect an individual's sense of "stability and well-being and may create the sensation of an impending bodily explosion" [96].

Frequently, we can find that the BPD's behavior is interpreted as "manipulative" and "attention-getting"; the patient him/herself not perceive it that way. The sense that many borderline patients have that their pain is worse than anyone else's may well be justified. The individual believes that no one cares to know the trouble, as no one has cared in the past; and, on the other hand, the patients believe that no one can ever know the trouble because others have never felt anything like the pain that they have experienced.

For women at the border—and we also include here some men (on all gay people), transexuals, intersexuals, etc.—the sense that no one can comprehend the extent and intensity of her suffering is an understandable consequence of the sense of never having *been known*. The patients are saying to those around them, *not* 'I want you to suffer as I have suffered,' but 'it is through my pain you shall know me'. [17]

#### **33.7.2 Suicide**

Patients with BPD are at high risk for suicide attempts and completed suicide [99]. Suicide attempts occur in up to 75% of patients with BPD, and up to 10% commit suicide, a rate almost 50 times greater than in the general population [99]. In DSM-5, BPD is the only personality disorder with suicidal or self-injurious behavior explicitly included in the diagnostic criteria [6]. BPD has been shown to have greater associations with suicidal behavior than major depressive disorder, another psychiatric disorder with a suicide-related criterion [99]. Some authors found that there is a trend toward higher maximum lethality of suicide attempts in men suicide attempters compared with women suicide attempters but not difference between men and women with regard to the proportion of suicide attempters or the number of suicide attempts [99].

Susanna Kaysen describes how the lack of place and position in the society/life and her feelings of desolation led to a suicide attempt prior to her hospitalization. She explains her act as a war between aspects of herself. She took 50 aspirin and passed out in a supermarket in front of the meat counter, and she describes her subjectivity like the meat at the meat counter [18], "bruised, bleeding, and imprisoned in a tight wrapping. I wanted to get rid of a certain aspect of my character. I was performing a kind of self-abortion with those aspirin." After having her stomach pumped, she feels she has succeeded, if only temporarily: "I felt good, I wasn't dead, yet something was dead" [78]. She tried to kill the fragmented site of self that its existence is unbearable.

Van der Kolk considers that suicide attempts by "borderlines" may well be guided by interpersonal communications, whereas cutting primarily serves to regulate interwork emotional states [100]. According to Linehan, parasuicidal behaviors constitute an attempt, albeit a maladaptive one, to gain control over unbearably painful, overwhelming negative affect. From the point of view of patients, "suicidal behavior is a reflection of serious at times frantic suicide ideation and ambivalence over whether to continue life or not. Although the patients' communication of extreme ideas or enactment of extreme behaviors may be accompanied by the desire to be rescued by the persons they are communicating with, this does not necessarily mean that they are acting in this manner in order to get help. Function does not prove intention" [24].

#### 33.8 Reflection

Dana Becker argues that the borderline diagnosis has been "feminized" and that borderline personality disorder has become a new "female malady" for the late twentieth century [17]. We would like to add that today is not only a diagnosis feminized but that someone who plays at the edges of the neutral, universal "subject" is at risk of being labeled.

As we have already referred in the text, in Western representational systems stands the humanistic vision of identity as a "generic, neutral, universal 'Subject'" [62, 64], based on a "masculine-type" construction. Many authors believe that the women are represented as "Other" to this ideal of the universal subject. But not only the women are represented in this Other but anyone who does not meet or identify with that ideal of "Subject."

There is a crucial debate about the intersection of the criticism of the obligatory heterosexuality and the rules on the able bodied and the *ableism* [101]. The *ableism* is based on the belief that some capacities are inherently more valuable, and those who possess them are "better" than the other, is based also in the fact that there are a few bodies *able to* and others do not, some people who have functional disability and others who lack it. *Ableism* remarks that this division is sharp [102]. This "ableism" is composed by a medicalized notion of the "normal body" and a normative pattern of beauty that is central in our Western society. Many voices draw attention on the parallels of critical theories on the functional diversity (*crip* theory) and its equivalent on sexuality (*queer* theory) that served to understand that sexuality or the functional diversity issues are not natural, or biological, but extremely rooted in cultural values and are a product of specific historical moments.

Crip theory emerges after a long struggle against the injustices experienced by people who are regarded as "second class" or located in the margins. Crip is a colloquial expression that is used to designate a person who has a disability and may not use any of its members. Crip is used also to designate someone who presents an important limitation in a particular area. Queer theory is based on the concept of gender as a social construction, cultural, and historic manufacturing that would not be determined by a truth or a substrate either natural or ontological.

The nexus between these theories is that both show that there are subjects with functional diversity and/or with nonnormative sexualities that have a historical legacy of pathologization, subjects who need medical or legal monitoring and need recognition of the society to be accepted as "people." They also have a historical path by which they have been considered "sinful subjects," demonic or defective, comparable to the conception of witchcraft to women that we have already referred in the text.

We consider interesting the contributions of the *queer* and *crip* theories because they appeal to look more in the dominant social norms, denouncing the inextricable links of power they submitted to people and not so much in the "acceptation" of the subjects that break these rules (voluntarily or involuntarily). Their goal is not seeking to be accepted or assimilated by a mainstream society; the goal is posing serious challenges to the notions of normality or tolerance, which we consider essential in terms of gender aspects (and others also).

DSM-5 says that to diagnose BPD, it is necessary to fulfill the "impairment in identity" criteria. If my identity is not in keeping with the "ideal and universal subject," if I feel myself on the margin, who am I? Where is my essence? In this "singing out of tune" comes the confusion and the feeling of emptiness. At the same time, we can put in question the items and diagnosis of gender dysphoria or gender identity disorder. The need for people on the fringes is given by this need to benefit in a society where difference is institutionally rejected.

The diagnosis of BPD itself offers etiological closure, severing the causal link with trauma and abuse. The patients are now distressed (and "difficult") because they have BPD, rather than the behaviors associated with BPD being the result of oppression and abuse. Words such as "disorder" have the power to obstruct further understanding and can in themselves shape thought and practice. Diagnosing BPD positions the diagnosed as "other" in their distress and difficult the recognition of the role of context. Thus, the rapid rise in the diagnostic prevalence of BPD represents sometimes a shift from a limited recognition of the extent and impact of the trauma associated with sexual or physical abuse, to a widespread acceptance of an individualizing and pathologizing model of mental distress which conceals sexual abuse by focusing on categorizing, blaming, and "treating" the survivors. If we continue to define distress as symptoms of psychiatric illness rather than as a "realistic response to an unacceptable reality," we continue to deny the agency of people who have already been abused and silenced; we also deny ourselves the possibility of constructing a more acceptable life/reality. "Me and a gun and a man On my back But I haven't seen Barbados So I must get out of this" sings the artist Tori Amos describing an episode in which she was raped. There have been admirers but also much negative criticism of her exposure, being accused as indecent by the fact to make it public.

It's possible that it is not by chance the rise of new technologies and the possibility to live "alternative-lives" *on line*. The aseptic space of the virtual world offers the possibility to live other identities expropriated in real life claiming a space that has been denied.

Anyway, we want to point the increase, in recent years, of the scientific literature studying the gender (and not only *sex*) differences in BPD, showing greater initiative and sensitivity for the relevance of the incorporation of the gender perspective in the study of this field.

The survival instinct warns us that we cannot be satisfied with a simple definition or with a limited vision of our individuality.

de Lauretis, T [103]

#### References

- 1. Stern A. Psychoanalytic investigation of and therapy in the border line group of neuroses. Psychoanal Q. 1938;7:467–89.
- APA. Diagnostic and statistical manual of mental disorders. 3rd ed. Revised. Washington, DC: American Psychiatric Association; 1987.
- 3. Roth A, Fonagy P. What works for whom? A critical review of psychotherapy research. London and New York: Guildford; 1996.
- Kernberg O. mentioned in Wirth-Cauchon. Women and the borderline personality disorder: symptoms and stories. New Brunswick and London: Rutgers University Press; 2003.
- Kernberg O. Borderline conditions and pathological narcissism. New York: Jason Aronson, Inc.; 1975.. (5th ed. 2012)
- American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders.
   5th ed. Arlington, VA: American Psychiatric Association; 2013.
- 7. Lewis G, Appleby L. Personality disorder: the patients psychiatrists dislike. Br J Psychiatry. 1988;153:44–9.
- 8. Torgensen S, Kringlen E, Cramer V. The prevalence of personality disorders in a community sample. Arch Gen Psychiatry. 2001;58:590–6.
- Johnson DM, Shea MT, Yen S, Battle CL, Zlotnick C, Sanislow CA, Grilo CM, Skodol AE, Bender DS, McGlashan TH, Gunderson JG, Zanarini MC. Gender differences in borderline personality disorder: findings from the collaborative longitudinal personality disorders study. Compr Psychiatry, vol 44, n°4 2003: pp 284–292.
- 10. DSM APA. 4th ed. Washington, DC: APA; 1994.
- Gunderson JG, Zanarini MC. Current overview of the borderline diagnosis. J Clin Psychiatry. 1991;42:1015–102.
- Zanarini MC, Williams AA, Lewis RE, Reich RB, Vera SC, Marino MF. Reported pathological childhood experiences associated with the development of borderline personality disorder. Am J Psychiatry. 1997;154:1101–6.
- 13. Zanarini MC, Frankenburg FR, Reich DB, Marino MF, Haynes MC, Gunderson JG. Violence in the lives of adult borderline patients. J Nerv Ment Dis. 1999;187:65–71.
- 14. Widiger TA. Invited essay: sex biases in the diagnosis of personality disorders. J Pers Dis. 1998;12(2):95–118.
- 15. Lynam DR, Widiger TA. Using a general model of personality to understand sex differences in the personality disorders. J Pers Disord. 2007;21(6):583–602.
- 16. Paggeot A, Huprich S. Measurement invariance between genders on two measures of border-line personality disorder. J Pers Disord. 2018;32(1):31–43.
- Becker D. Through the looking glass: women and borderline personality disorder. Boulder, Colo.: Westview Press; 1997.
- 18. Wirth-Cauchon J. Women and the borderline personality disorder: symptoms and stories. New Brunswick and London: Rutgers University Press; 2003.

- 19. Singer M. The experience of emptiness in narcissistic and borderline states: II. The struggle for a sense of self and the potential for suicide. Int Rev Psycho-Anal. 1977;4:471–9.
- Schwartz-Salant N. The dead self in borderline personality disorders. In: Levin DM, editor. Pathologies of the modern self: postmodern studies on narcissism, schizophrenia and depression. New York: New York University Press; 1987.
- 21. Flax J. Re-membering the selves: is the repressed gendered? Mich Q Rev. 1986;26: 92-110.
- 22. Ross M. The borderline diathesis. Int Rev Psychoanal. 1976;3:305–21.
- 23. Boyer BL. Working with a borderline patient. Psychoanal Q. 1977;46:386–424.
- 24. Linehan M. Cognitive-behavioral treatment of borderline personality disorder. New York: Guilford Press: 1993.
- 25. Beauvoir S. The second sex. Parshley EM, traslator. New York: Vintage; 1989.
- Cixous H, Clément C. The newly born woman. Wing B, translator. Minneapolis: University of Minnesota Press: 1986.
- 27. Bourdieu P. La domination masculine. Éditions du Seuil. París, 1998. 7ª ed. Barcelona: Editorial Anagrama; 2012.
- Cauwels J. Imbroglio: rising to the challenges of borderline personality disorder. New York: WW Norton; 1992.
- 29. Bayes A, Parker G. Borderline personality disorder in men: a literature review and illustrative case vignettes. Psychiatry Res. 2017;257:197–202.
- Skodol AE, Bender DS. Why are women diagnosed borderline more than men? Psychiatry Q. 2003;74(4):349–60.
- Gunderson JG, Zanarini MC. Current overview of the borderline diagnosis. J Clin Psychiatry. 1987;48:5–11.
- 32. Soloff P, Nutche J, Goradia D, Diwadkar V. Structural brain abnormalities in BPD: a voxel-based morphometry study. Psychiatry Res. 2008;164:223–36.
- 33. Sher L, Rutter SB, New AS, Siever LJ, Hazlett EA. Gender differences and similarities in aggression, suicidal behavior, and psychiatric comorbidity in borderline personality disorder. Acta Psychiatr Scand. 2018:1–9. https://doi.org/10.1111/acps.12981.
- Soloff PH, Chiapetta L, Mason NS, Becker C, Price JC. Effects of serotonin-2A receptor binding and gender on personality traits and suicidal behavior in borderline personality disorder. Psychiatry Res. 2014;14:79–85.
- 35. Holthausen BS, Habel U. Sex differences in personality disorders. Curr Psychiatry Rep. 2018;20:107. https://doi.org/10.1007/s11920-018-0975-y.
- Hoertel N, Peyre H, Wall MM, Limosin F, Blanco C. Examining sex differences in DSM-IV borderline personality disorder symptom expression using Item Response Theory (IRT). J Psychiatr Res. 2014;59:213–9.
- 37. Sansone RA, Wiederman MW. Sex and age differences in symptoms in borderline personality symptomatology. Int J Psychiatry Clin Pract. 2014;18:145–9.
- 38. Henry KA, Cohen CI. The role of labeling processes in diagnosing borderline personality disorder. Am J Psychiatr. 1983;140(11):1527–9.
- Silberschmidt A, Lee S, Zanarini M, Schulz C. Gender differences in borderline personality disorder: results from a multinational, clinical trial sample. J Personal Disord. 2015;29(6):828–38. https://doi.org/10.1521/pedi\_2014\_28\_175. Epub 2015 Jan 6.
- 40. Sazsz T. The myth of mental illness. London: Paladin; 1972.
- 41. Foucault M. Madness and civilization—a history of insanity in the age of reason. London: Tavistock; 1967.
- 42. Showalter E. The female malady: women, madness and English culture 1830–1980. New York: Penguin; 1985.
- 43. Mitchell SW. Rest in Nervous Disease, quoted in Strouse; 1980. p. 112.
- 44. Chesler P. Women and madness. 2nd ed. New York: Harcourt Brace Jovanich; 1989.
- 45. Hale NG Jr. Freud and the Americans: the beginnings of psychoanalysis in the United States, 1876–1917. New York: Oxford University Press; 1971.
- 46. Jimenez MA. Gender and psychiatry: psychiatric conceptions of mental disorders in women, 1960–1994. Affilia. 1997;12(2):154–75.

- 47. Saw C, Proctor G. Women at the margins: a critique of the diagnosis of borderline personality disorder. Fem Psychol. 2005;15:483. https://doi.org/10.1177/0959-353505057620.
- 48. Samuels A. Gender and the borderline. In: Schwartz-Salant N, Stein M, editors. The borderline personality in analysis. Wilmette, III: Chiron; 1988.
- 49. Reiser DE, Levenson H. Abuses of the borderline diagnosis: a clinical problem with teaching opportunities. Am J Psychiatr. 1984;141(12):1528–32.
- Sinai C, Hirvikoski T, Wiklander M, Nordström AL, Nordström P, Nilsonne A, Wilczek A, Asberg M, Jokinen J. Exposure to interpersonal violence and risk of post-traumatic stress disorder among women with borderline personality disorder. Psychiatry Res. 2018;262:311–5. https://doi.org/10.1016/j.psychres.2018.01.047.
- Department of Health. Women's mental health: into de mainstream strategic development of mental health care for women. London: Department of Health; 2002.
- Meichenbaum D. Treating post traumatic stress disorder: a handbook and practice manual for therapy. Chichester: Wiley; 1994.
- 53. Castillo H. You don't know what it's like. Ment Health Care. 2000;4(2):42–23 and 53–58.
- 54. Masson J. The assault of truth: Freud's suppression of the seduction theory. Harmondsworth: Penguin; 1985.
- 55. Warner S, Wilkins T. Diagnosing distress and reproducing disorder: women, child sexual abuse and borderline personality disorder. In: Reavey P, Warner S, editors. New feminist stories of childhood sexual abuse. London: Routledge; 2003. p. 167–186.
- 56. Wilkins TM, Warner S. Understanding the therapeutic relationship- women diagnosed as borderline personality disordered. Br J Forensic Pract. 2000;2(3):30–7.
- 57. Wilkins TM, Warner S. Women in special hospitals: understanding the presenting behavior of women diagnosed with borderline personality disorder. J Psychiatr Ment Health Nurs. 2001;8:289–97.
- 58. Schereider EM, Wood PK, Trull TJ. The comorbidity of borderline personality disorder and posttraumatic stress disorder; revisiting the prevalence and associations in a general population sample. Bord Personal Disord Emot Dysregul. 2015;2:11.
- 59. Briere J, Agee E, Dietrich A. Cumulative trauma and current posttraumatic stress disorder status in general population and inmate samples. Psychol Trauma. 2016;8:439–46.
- 60. Jacob JM, Lamp K, Rauch SA, Smith ER, Buchholz KR. The impact of trauma type or number of traumatic events on PTSD diagnosis and symptom severity in treatment seeking veterans. J Nerv Ment Dis. 2017;205:83–6.
- 61. Herman J. Trauma and recovery. New York: Basic Books; 1992.
- 62. Sass L. The self and its vicissitudes: an archeological study of the psychoanalytic avant-garde. Soc Res. 1988;55(4):551–607.
- 63. Rubin G. The traffic in women: notes on the political economy of sex. In: Reiter RR, editor. Toward and anthropology of women. New York: Monthly Review Press; 1975.
- Butler J. Gender trouble: feminism and the subversion of identity. New York: Routledge; 1990.
- 65. Gallop J. Reading Lacan. Ithaca: Cornell University Press; 1985.
- Bordo S. Unbearable weigh: feminism, Western culture and the body. Berkeley: University of California Press; 1997.
- 67. Herman A. The better angels of capitalism: rhetoric, narrative and moral identity among men of the upper class. Boulder, CO: Westview Press; 1999.
- Grosz E. Volatile bodies: toward a corporeal feminism. Bloomington: Indiana University Press; 1994.
- Singh D, McMain S, Zucker KJ. Article first published online: 3 Nov 2010. J Sex Med. 2011:8(2):447–54.
- 70. Berger J. Ways of seeing, quoted in Showalter; 1985. p. 212.
- 71. Deutsch H. Some forms of emotional disturbance and their relationship to schizophrenia. In: Stone MH, editor. Essential papers on borderline disorders: one hundred years at the border. New York: New York University Press; 1942.
- 72. Deutsch in Stone MH. Essential papers on borderline disorders: one hundred years at the border. New York: New York University Press; 1986.

- 73. Hoch P, Polatin P. Pseudoneurotic forms of schizophrenia. Psychiatry Q. 1949;23:248–76.
- 74. Yalom ID, Elkin G. Every day gets a little closer: a twice-told therapy. New York: Basic Books; 1974.
- 75. Flax J. Remembering the selves: is the repressed gendered? Mich Q Rev. 1986;26:92–110.
- 76. Yalom ID. Therapeutic monogamy. In: Love's executioner and other tales of psychotherapy. New York: McGrawHill: 1989.
- 77. Ziga I. Devenir perra. 1ª ed. España: Ed. Melusina; 2009.

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- 78. Kaysen S. Girl, interrupted. New York: Turtle Bay Books; 1993.
- Shua AM. La muerte como efecto secundario. Buenos Aires: Editorial Sudamericana; 1997.
   p. 43.
- 80. Stiver IP. The meanings of dependency in female-male relationships. In: Jordan JV, Kaplan AG, Miller JB, Stiver IP, Surrey JL, editors. Women's growth in connection. New York: Guilford; 1991. p. 143–161.
- 81. Westkott M. The feminist legacy of Karen Horney. New Haven: Yale University Press; 1986.
- 82. Gilligan C. In a different voice. Cambridge, MA: Harvard University Press; 1982.
- 83. Kirsch B. Status and verbal power assertion: does gender of popularity better predict directive use? In: Franks V, Rothblum ED, editors. The stereotyping of women: its effects on mental health. New York: Springer; 1983.
- 84. Horney K. The neurotic personality of our time. New York: WW Norton; 1937.
- 85. Gunderson JG, Herpertz SC, Skodol AE, Torgersen S, Zanarini MC. Borderline personality disorder. Nat Rev Dis Primers. 2018;4:18029.
- 86. Lerner HG. Internal prohibitions against female anger. In: Lerner HG, editor. Women in therapy. Northvale NJ: Jason Aronson; 1988. p. 59–75 (Reprinted from American Journal of Psychoanalysis 1980;40(2):137–48.)
- 87. Miller JB. The construction of anger in women and men. In: Jordan JV, Kaplan AG, Miller JB, Stiver IP, Surrey JL, editors. Women's growth in connection. New York: Guilford; 1991. p. 181–196.
- 88. Anderson CA, Bushman BJ. Human aggression. Annu Rev Psychol. 2002;53:27–51.
- Mancke F, Bertsch K, Herpertz SC. Gender differences in aggression of borderline personality disorder. Borderline Personal Disord Emot Dysregul. 2015;2:7. https://doi.org/10.1186/ s40479-015-0028-7.
- Macaulay J. Adding gender to aggression research: incremental or revolutionary change?
   In: O'Leary VE, Unger RK, Wallston BS, editors. Women, gender and social psychology.
   Hillsdale, NJ: Lawrence Erlbaum; 1985. p. 191–224.
- 91. Nichter M. Idioms of distress: alternatives in the expression of psychosocial distress: a case study from South India. Cult Med Psychiatry. 1981;5(5):379–408.
- 92. Romanyshyn R. Technology as dream and symptom. New York: Routledge; 1989.
- 93. Griggers C. Becoming woman. Minneapolis: University of Minnesota Press; 1997.
- Strong M. A bright red scream: self-mutilation and the language of pain. New York: Vilking Press; 1998.
- Casadó ML. Antropología de las autolesiones corporals: cuerpo, identidad, género y emociones. Editorial Académica Española: OmniScriptum GmbH& Co. Alemania; 2013.
- 96. Favazza AR. Bodies under siege. Baltimore: Johns Hopkins University Press; 1987.
- 97. Perry JC, Cooper SH. A preliminary report on defenses and conflicts in borderline personality disorder. J Am Psychoana Assoc. 1986;34:863–93.
- 98. Waites E. Trauma and survival: post-traumatic and dissociative disorders in women. New York: Norton; 1993.
- 99. Sher L, Fisher AM, Kelliher CH. Clinical features and psychiatric comorbidities of borderline personality disorder patients with versus without a history of suicide attempt. Psychiatry Res. 2016;246:261–6.
- van der Kolk BA, Perry JC, Herman JL. Childhood origins of self-destructive behavior. Am J Psychiatr. 1991;148:1665–71.

- 101. Peers D, Brittain M, Mcruer R. Crip excess, art and politics: a conversation with Robert Mcruer. Rev Educ Pedagogy Cult Stud. 2012;34(3–4):148–55.
- 102. Toboso M, Guzmán F. Cuerpos, capacidades, exigencias funcionales... y otros lechos de Procusto. Polit Soc. 2010;47(1):67–83.
- 103. De Lauretis T. Diferencia e indiferencia sexual. Diferencias. Etapas de un camino a través del feminism. Cuadernos inacabados, n° 35. Madrid: horas y Horas; 2000.



## **Somatoform and Factitious Disorders**

34

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#### **Abstract**

Gender seems to be a nuclear issue in the diagnosis and treatment of somatomorphic disorders. It is well known that the categorization of these disorders has some controversy. On one hand, this controversy shows the limitation of the mind-body dual model which underlies the western medical thinking, in some way overlooking that pain and corporal awareness are not divided from the subjective experience of self. This group of mental disorders has suffered several modifications as shown at the different editions of the *Diagnostic and Statistical Manual of Mental Diseases* (DSM) although its validity and gender neutrality are still inconclusive. Firstly, in this chapter we analyze gender perspective related to somatization and in particular the somatoform disorder classification. Secondly, we describe somatoform disorders as in the classic terminology considering the new definition proposed in the last edition of DSM. Nevertheless, it is not clear that these new diagnostic criteria for somatoform disorders have reached gender neutrality.

#### 34.1 Introduction

The somatomorphic disorder group represents one of the groups which has changed the most in their classification system for mental illnesses [1, 2].

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What this group of disorders has in common is the presence of physical symptoms with no medical explanation (also known as somatic symptoms); concerns for these symptoms and the illness behavior include medical consultation and sanitary resource consumption.

Symptoms with no medical explanation (or somatization) or the excessive concern for the symptoms frequently present a clinical problem which accounts for half of all the primary consultations [3]. However categorization of these disorders has some controversy. On the one hand, this controversy shows the limitation of the mind-body dual model which underlies the western medical thinking, in some way overlooking that pain and corporal awareness are not divided from the subjective experience of self [4]. On the other hand, from the beginning of the proposal as a psychiatric diagnosis, a great variability in expressions and frequency has been observed depending on the cultural and social group. In western culture, except the hypochondriac and dysmorphic body disorders, it comes to attention that there is a high prevalence of women with disorders compared to men. Beyond specific sexual somatic symptoms, these differences clearly question gender disorder neutrality.

#### 34.2 Gender and Somatization

The term "gender," introduced in the 1950s by Money, is not equivalent to sex. However, it is very frequent that medical literature uses gender and sex as equals [5]. Gender refers to self-representation of people as man or woman, psychosocial representations of living like a man or a woman. It includes biological, psychological, and social aspects as well as their complexities, so it actually is a distinctive feature. A person's sex is genetically determined in the moment of conception and is not a question of choice. However, the way a man or a woman lives in the gender assigned can act in many and different directions [6]. Gender can affect virtually all aspects in psychopathology, including prevalence of mental illness, symptom expressions, the course of the illness, the different ways patients search for help, and the response to treatment.

In this way, gender is the result of a complex process of interaction between genome and environment, interaction that takes place during the different phases of development and peaks with the expression of a particular phenotype, which includes the individuals' conduct characteristics [7].

Based on the reproductive capacity of women, sexual division was established within human activities, as well as demands and expectations of society regarding the subjects by sex. According to the dominant interpretation of sexual difference, it is considered that because women are those who have the pregnancy capacity, parenting and looking after the household are tasks specifically for them. According to this notion, women are conceived as a "beings for others" [8]. The psyche of women is then influenced by symbolic and material prodigality; this assignment builds a symbolic and material space whose referent is the household, the private space.

If we go back to a more psychoanalytical perspective as a way of a woman expressing her somatic symptoms compared to men, we find there is an early

attachment of women to their mother which establishes the sense of herself based on the connection and fusion with each other. In women, attachment is carried over to the husband; this fact can originate a higher level of responsibility that women show in marriage commitments and are more affected by family ties damages.

All these factors create a feminine identity generally characterized by subjectivity, subordination, fear, weakness, and dependence. This is translated into body expression with discomfort, showing somatization, pain, and conversion. As a displeasure for not agreeing with what has been imposed for years, the inability to rebel against or deny the wish for domestic life of motherhood.

Although males have been provided with greater possibilities of self-realization and enjoy sexual and labor advantages, this can imply certain health risks. Males build their identity in opposition to the feminine; the first reference with who they interact is their mother, and through her they enter the symbolic world.

Male behavior supposed as essential is configured through defensive maneuvers, which include aggressiveness, competitiveness, independence, and attachment to external reality. This set of attributes also includes more security, decisiveness, domain and protective with the weak, more physical strength, "adventurous spirit," "less responsibility with family commitments, and more experimentation" [9, 10].

Although it is being modified, women's social recognition is still restricted to domestic and family ambience. The male identifying process is modulated by social demands which include economic success and public recognition. Feminine character delimited by a greater internalization of women and the devaluation of their concerns by themselves can lead them easily to failure and sadness, and with this would come somatizations which are so often associated to a low mood [11]. Social and employment situations for women in Europe have been modified very significantly in the last years, as well as coexistence, because demographic and sanitary changes occurred (increase of chronic diseases and life expectancy). This new scenery has made institutions implement diverse public policies around the so-called family and work conciliation [12].

Historical data leaves no doubt: three quarters of caring is done by families and, within them, a similar proportion by adult women [13]. Nowadays, caring is an absolutely gendered task, and it is an activity which is not well seen or socially recognized. It is assumed that women for the virtue of being have the abilities and knowledge needed to be a caregiver; additionally this task remains private, so it makes it difficult to be recognized. In addition, the high affective and moral burden of the caregiver's job makes it even more difficult to have the right to complain and high chances of developing somatic patterns as the only way of expression.

## 34.3 Gender Dysphoria and Somatization

As it was previously said, femininity is related to emotion and vulnerability, and masculinity is identified with toughness and physical violence. There are situations where individual's gender identity doesn't fit with this role, so the individual feels more identified with the other gender identity instead of feeling identified with

pre-assigned gender identity based on strict biological criteria. In these cases we can talk about gender dysphoria just like it is specified in the DSM V:

- Marked incongruity between born sex and felt gender identity (opposite sex identification) during the past 6 months.
- Significant clinical discomfort or functional impairment as a result of this incongruity.

Transsexuals, as any other person living in the same culture and society, come into being as from his sex. As women and men living in their assigned biological and coincidently felt gender identity, transsexuals feel a different gender identity that cannot be somatized as long as their real body doesn't correspond with the felt body, that is to say with the sex which will correspond to this identity [14].

Due to these feelings, transsexuals feel an intense desire to live and to be accepted as a member of the gender opposite to the given biological sex, so it is usual that they request to modify their bodies, whether with hormone therapies or surgical methods in order to adjust it to the felt and desired gender [15].

Although existing data of mental disorders and gender dysphoria are disparate, it is probably that transsexuals hold a higher prevalence of psychiatric symptoms, mainly due to the rooted social discrimination pattern, isolation, and occupational problems whom they are exposed to [16]. As it has been verified in diverse studies [17, 18], transsexuals who have the possibility of carrying out sexual reassignment treatments as well as being emotionally supported by their families, especially by the mother, show a lower level of risk behaviors and psychopathological symptoms, whether before or after treatment. Instead, parents who react in a blaming way increase the preexisting vulnerability of suffering depressive episodes as well as suicide attempts [19].

On the other hand, there are many authors who assert that the gender dysphoria itself produces more comorbidity with personality disorders (narcissistic, antisocial, and border line), depressive disorders, anxiety disorders, psychosomatic disorders, schizophrenia, self-destructive behaviors, and substance abuse disorders [20–22].

#### 34.4 Gender Differences in Somatic Disorder Classification

Almost from the beginning of the proposal as a somatomorphic disorder diagnosis, somatic disorder in particular, the gender issue has been present as a subject of debate.

Except hypochondria and body dysmorphic disorder, the somatomorphic disorders (in its new name, somatic symptom disorder) have a ten times higher prevalence in women.

Neutral gender diagnose criteria for men and women are identical, assuming they are equally valid for both sexes. This option is used in almost all sets of DSM-IV-TR diagnose criteria, except a few. The problem with this option occurs when there is a gender slant when a diagnosis is applied wrongly more frequently to one

sex or the other. The huge difficulty of developing criteria with gender neutrality with a similar validity arises in the DSM V.

One of the most clear examples is found in the somatomorphic disorders. Diagnose criteria contemplated in the DSM III included 37 somatic symptoms organized in seven different categories, one of which was called "reproductive symptoms of women" and included painful, irregular, and intense bleeding during menstruation and intense vomiting during pregnancy. These criteria cannot be considered with gender neutrality because they can only be used for somatic disorder diagnose for women. Surely, they cannot be equally applied to men, and neither are they valid for disorder diagnosing in men. The DSM II points out that somatic disorder "is usually not diagnosed in men," but this rate differential in sexual prevalence could be partially due to the lack of diagnose criteria with gender neutrality.

After DSM III being published, Cloninger et al. [23] pointed out that the diagnostic threshold should have been reduced to approximately 8 of 37 diagnose criteria, in order to equate the somatic disorder prevalence (according to DSM III criteria) in men and women. However, it is not made clear if the use of a set of criteria that establishes an equal prevalence in men and women would be valid for a disorder that may actually be more frequent in women than in men [24].

In DSM IV contemplation of exclusive symptoms in women persists (menstrual irregularity, excessive hemorrhage during menstruation, and vomiting throughout pregnancy), although in this case, they are compensated by specific male symptoms (erectile dysfunction or ejaculation) under the "sexual symptom" requirement. Nonetheless, we still do not know if symptom example inclusions of men compensate feminine clinic pattern. Additionally if specific symptoms in women, before mentioned, are important and valid clinical symptoms in respect to women's somatic disorder, eliminating them in order to reach "gender neutrality" could be problematic.

Another core issue is if women somatize more than men [25]. And if it is so, why? Indeed, women present more somatic symptoms and more intense than men. The previous editions of DSM have supported the diagnosis in itself of somatic symptoms and symptom number and also the illness behavior toward themselves. DSM V, on the contrary, abandons this approach and highlights the psychological component of physical sensations (feelings, thoughts, and behaviors). Despite the changes, some factors which contribute to the gender differences of somatic symptoms and the illness behavior are not yet considered. Below are a number of factors related with somatization which could contribute to gender differences [26–28]:

#### Etiological factors:

- History of sexual abuse during childhood and/or current sexual abuse: in both cases incidence is higher in women.
- Biological differences: differences in nociception and autonomous physiological response to pain.
- Assessment and appraisal of corporal sensations:
  - Tendency in women to a higher somatic awareness.
  - Women have greater recall of prior symptoms.

- Social roles:
  - Greater stoicism in men.
  - Greater recognition of discomfort in women.
- Comorbidity with other psychiatric disorders:
  - Association of anxiety and depression, both more frequent in women.
- · Bias in gender:
  - Gender bias in research.
  - Gender bias in clinical practice.

In fact, DSM V edition proposes a new denomination for the majority of them (Table 34.1).

Factors which increase risks of suffering unexplainable somatic symptoms—with the exception of the hypochondriac disorder—include being a woman, young, different race to white, low cultural level, and low level of income [29, 30].

The DSM V proposes a change in the somatomorphic disorder diagnosis to somatic symptoms and related disorders. It defines them more as a somatic symptom which generates distress and anxiety and/or ends up disturbing everyday life. This must be associated to thoughts, feelings, or behaviors involving symptoms or health condition. It becomes chronic after 6 months.

Somatization, hypochondria, pain, and somatomorphic undifferentiated disorders are deleted from DSM V. Somatization and somatomorphic undifferentiated disorders are combined to become somatic disorder symptoms, which do not need a specific number of somatic symptoms. In the DSM V, people with chronic pain can be diagnosed as disorder of somatic symptoms with predominant pain or as psychological factors which affect other medical conditions. Finally, it proposes somatic symptom predominance, anxious or painful, the hypochondria is renamed as anxiety disorder due to illness, and conversion disorder becomes neurological function disorder.

**Table 34.1** Changes in the denomination and location of the somatoform disorders in the last two DSM editions

| DSM IV  | DSM V   |
|---|---|
| Somatomorphic disorders  - Somatization disorder.  - Undifferentiated somatoform disorder.  - Pain disorder.  - Hypochondriasis disorder. | Somatic symptom and related disorders  — Somatic symptom disorder.  — Illness anxiety disorder. |
| Conversion disorder   | Conversion disorder (functional neurological symptom disorder)                                  |
| Body dysmorphic disorder  |   |
|   | Psychological factors affecting other medical conditions  |
| Factitious disorder   | Factitious disorder   |

The consequence of accepting that the somatic symptom disorder is a clear example of the interaction between somatic and mental factors is to take it out from the mental illness catalogue, so out from the DSM V. This implication has been assumed by the group "psychological factors affecting other medical illness." This group collects those well-known psychological variables (stress, coping strategies, beliefs, values, social support) that have not only a negative influence in the developing of medical illness as gathered in the DSM V but also positive, as it might be shown as well. It is formally incongruous to consider this group of factors which have influence in an illness as a disorder due to the fact that it is normal that these have impact in the course of mental and physical conditions, but do not conform a morbid entity by themselves [31].

As a conclusion we could say that these disorders share a common feature: the great importance of the somatic symptoms associated with significant anguish and impairment. Whereas non-explicated medical symptoms were an essential feature in many DSM IV disorders, the diagnosis of somatic symptoms nowadays does not require that these symptoms are clinically unaccountable or, in other words, they can be associated or not to another medical condition [2].

## 34.5 Somatic Symptom Disorders and Related Disorders

From an etiologic point of view, the first explanatory theories came out from Janet and Freud, showing up the etiological role of psychopathology in psychic trauma. A corporal symptom is meant to be the expression of a concomitant mental discomfort. As long as we cannot solve the mental conflict, our attention focuses on a physic disturbance that can either appear simultaneously or already existed in a subclinical way [32].

When we work exclusively with a biomedical model, somatization is usually the final outcome of a long process of discard, being frustrating to either doctors or patients. This model can be synthesized as a directive one, focused on the medical vision, and addressed to the adaptation of the patient to its condition leaving aside the context, as well as sex and of course cultural, social, and gender factors.

However, if we consider the biopsychosocial model, the etiology of these symptoms can be explained by a complex interaction of different factor perspectives which probably enriches the picture [33]. In this model we find predisposing, precipitant, and perpetuating factors which allow us to know why a patient shows these symptoms in order to look for the correct therapeutic tools to implement an effective treatment.

Lifestyles, learning and beliefs, and personality traits, such as histrionic in women, antisocial in men, and dependent in both, are considered to be predisposing factors. It has to be pointed out that these patients decline to attribute their symptoms to psychologic causes, being showed as a very strong fact that produces frustration and bewilderment in doctors and provokes rejection in patients [34, 35].

Feminist tendencies talk systematically about complaints and discomfort: "somatic complaints, psychological discomfort, discomfort symptoms" in the

psychoanalytic sense of discomfort within the culture. Discomfort in women is defined as "A subjective feeling of psychic suffering that cannot be found in the classical criteria of illness, but corresponds to psychosocial conflicts." "Suffering that cannot be decoded and expressed with words, which appears in the body as a wrong defined and indemonstrable organic cause symptom" [36].

The observation of causal, associated, predisposing, and protector factors is based on an explicative central nucleus which is the oppression exerted to women due to its subordinated social condition, analyzing the different shapes on the way that deprivation of social and familiar power is manifested. Biomedical feminism adds to the general stress factors such as violence, continued abuse, and childhood abuses in the personal record of women suffering from somatic syndromes. Also they add the historical and socioeconomic context in which women live, incorporating social gender factors: marital status, multiple roles, being a small child mother, and salaried job. Likewise, many protective gender factors have been detected, such as women empowerment through autonomy and event life control, access to material resources, and environment support [37, 38].

## 34.6 Conversion Disorder (Functional Neurological Symptom Disorder)

Somatic symptoms are contemplated as a kind of psychological defense that have the objective of diminishing intrapsychic pain [39]. This mechanism is known as the "primary gain" [40] that searches the restoration of the psychological balance redirecting the attention to the symptoms. The real problem (origin of the psychic instability) gets automatically blocked, or it is partially experimented without being registered by the conscience.

Once it comes out, the symptom can be used in a conscious or unconscious way with the purpose of obtaining interpersonal benefits for the ill individual. This is known as "secondary gain" [40].

In the conversion disorder, "primary gain" appears to be nonconscious, and consequently, emergent symptoms are perceived as a nondesired alteration by the patient. The patients then feel its own illness. They don't have enough conscience of the intrapsychic conflict that causes the symptoms, neither that their symptoms are not caused by a medical condition. However, the specific shape in which the symptoms are manifested reflects the convictions of the patient about the way in which this illness should come out.

Historically referred to hysterical neurosis of conversion. The essential characteristic of conversion disorder is the presence of symptoms or deficits that affect the motor or sensory functions and which suggest a neurological disorder or any other medical illness. Conversion symptoms are related to voluntary or sensory motor activity and therefore are called "pseudo neurological." Typical motor symptoms are disturbances of coordination and balance, paralysis or localized muscle weakness, localized hoarseness, difficulty swallowing, sensation of lump in the throat, and urinary retention. The sensory-type symptoms tend to be loss of touch and

painful sensitivity, diplopia, blindness, deafness, and hallucinations. Crisis or seizures may also occur. The less medical knowledge the patient has, the more implausible are his referring symptoms. Individuals with symptoms of conversion may manifest the belle indifference (a relative lack of concern about the nature or the implications of the symptoms) or present attitudes of dramatic or histrionic type. Due to the easy suggestibility of these individuals, their symptoms may be modified or may disappear according to external stimuli, however keeping in mind that this is not specific to conversion disorder and that it can occur in different medical diseases. It is common for symptoms to appear after a situation of extreme psychosocial stress.

In other clinical pictures, various specific somatic syndromes have been described that are defined by somatic symptoms; these are part of entities such as fibromyalgia, irritable bowel syndrome, or chronic fatigue syndrome. Most of these syndromes occur more frequently in women than in men [41]. Primary care studies have found that several of these syndromes are associated with symptoms of anxiety and depression [42].

#### 34.7 Factitious Disorders

The simulation of an illness already appears in antique texts. In the second century, Galeno collected a register of self-inflicted or simulated symptoms. In 1938, a British psychiatrist, called Hector Gavin, pointed out in his work "On feigned and factious disorders" that in most of the cases, the single motivation for this kind of patients was to inspire compassion.

The term "Munchausen syndrome" was used for the first time in 1951 by a British psychiatrist called Asher. The choice of the term was based on the existing similarity between the pilgrimages and the elaborations of these patients and the fantastic anecdotes and travels attributed to Baron Munchaüsen (1720–1797) reflected in the chronicles translated to the English language by Rudolf Erich Raspe, German writer, in "Baron Münchausen's Narrative of his Marvellous travels and Campaigns in Russia" (1786).

Factitious disorders are characterized by a voluntary production or faking of physical or psychological symptoms repeatedly and consistently in the absence of disorder, disease, or somatic or mental incapacity and without justifying this behavior by the presence of external incentives (or of secondary gain). In factitious disorders the production of diseases or injury is intentional and conscious, but the real motivation is unconscious and often involves the need to become "patients" and thus be cared for by the health team. However, it should be acknowledged that the presence of factitious signs or symptoms does not imply the absence of real disorders. In fact, factitious disorders are related to serious personality disorders.

Factitious disorders are more frequent in middle-aged women, except the Munchausen syndrome which is typical in males. Confusion with denominations exists. Often, Munchausen syndrome appears as a synonym for factitious disorder,

which is wrong. Munchausen syndrome is a subtype of a factitious disorder, the most common and serious, and is characterized by the predominant production of physical signs and symptoms in middle-aged males, which are often unemployed, unmarried, and uprooted from their families, often wandering from hospital to hospital or from city to city, sometimes with a history of psychotic behavior and of toxic abuse, multi-systemic complaints, and history of voluntary medical discharges [43].

Factitious disorders occur in women (in a 3:1 ratio in regard to males), between 20 and 40 years of age, they usually develop a profession in the healthcare area (around 50%), and with greater family rooting and without behaviors of pilgrimage, complaints centered on a single system, minor history of hospitalizations, and having personalities with immature, dependent, hypochondriac, and passive traits.

It is important to contradistinguish factitious disorder from simulation, which is described as the deliberate production of physical symptoms in order to obtain a personal and obvious gain [2]. The simulator patient consciously decides to feign an illness. The underlying motivation is conscious as well, and it's directed to avoid noxious consequences as well as to receive nondeserved benefits [44, 45]. Simulators know that they are pretending to be ill. Simulated signs and symptoms are ideogenic, in the sense that they represent the patient idea of how this illness should come out. The somatic presentation of the simulation is hard to be distinguished from the one seen in the somatizer patient [46].

The **Munchausen syndrome by proxy** (MSbP) is a variant of Munchausen syndrome, described for the first time by the pediatrician Roy Meadow in 1977; it is the parent or caregiver the one simulating or deliberately generating symptoms or signs of disease in a dependent child, thus causing tests and unnecessary and potentially harmful treatments, making the child a mere victim.

The Munchausen syndrome by proxy (MSbP) is a particular form of child abuse, the severity of which lies in its high morbidity and mortality, difficult diagnosis, and subsequent management.

The majority of people who suffer from this syndrome are young married women. They present themselves to others as mothers concerned about their children's well-being and dedicated to them, but when they are alone with the children, they show little interest to them and hardly acknowledge them. They have an intense need to get involved with medical personnel and hospitals and use their children to obtain these contacts. Many authors [47] argue that in one third of the mothers, there is a history of factitious disorders.

Their association with personality disorders, primarily with the histrionic and borderline, as well as having eating disorders is common [48].

The approach is highly complicated and should be multidisciplinary, since the child must be separated from the mother, but with the risk that if she feels she's been discovered, she could run away with the child. The mother usually does not cooperate, and with respect to the child, tracking should be done to him since he runs the risk of suffering a factitious disorder in adulthood [47].

#### References

- American Psychiatric Association. Diagnostic and statistical manual of mental disorders.
   Fourth edition (DSM-IV). Washington, DC: American Psychiatric Publishing; 1994.
- American Psychiatric Association. Diagnostic and statistical manual of mental disorders. Fifth edition (DSM V). Washington, DC: American Psychiatric Publishing; 2013.
- Schappert SM. National Ambulatory Medical Care Survey: 1991 summary. Adv Data. 1993;230:1–16.
- Sims A. Symptoms in the mind. An introduction to descriptive psychopathology. 3rd ed. Oxford: Elservier Limited; 2003.
- 5. Ristvedt SL. The evolution of gender. JAMA Psychiat. 2014;71(1):13-4.
- Gaviria Arbeláez SL, Alarcon RD. Psicopatología y genéro: visión longitudinal e histórica a través del DSM. Rev Colomb Psiquiatr. 2010;39(2):389–404.
- Narrow WE, First MB, Sirovatka PJ. Regier DA, editors. Age and gender considerations in psychiatric diagnosis: a research agenda for DSM-V. Washington, DC: American Psychiatric Publishing; 2007.
- 8. Lagarde M. Antropología de los cautiverios: madresposa, monjas, putas, presas y locas. México: Universidad Nacional Autónoma de México; 1992.
- 9. Badinter E. XY La identidad masculina. Madrid: Alianza Editorial; 1992.
- Quintanar J. lo Masculino en la edad de la latencia. México: Instituo de Investigación en Psicología Clínica y Social, AC; 1987.
- 11. Granados JA, Ortiz L. Patrones de daños a la salud mental: psicopatología y diferencias de género. Salud Mental (México). 2003;26(1):42–50.
- 12. Esteban ML. Cuidado y salud: costes en la salud de las mujeres y beneficios socials. In: Congreso Internacional Sare 2003. Cuidar cuesta: costes y beneficios del cuidado. Instituto vasco de la Mujer y Comunidad Europea/Fondo Social Europeo; 2004. p. 63–84.
- 13. Durán MA. Costes invisibles de la enfermedad. Bilbao: Fundación BBV; 1999.
- 14. Vendrell J. ¿Corregir el cuerpo o cambiar el sistema? La transexualidad ante el orden de género. Sociológica (Méx). 2009;24(69):61–78.
- Hengstschläger M, van Trotsenburg M, Repa C, Marton E, Huber JC, Bernaschek G. Sex chromosome aberrations and transsexualism. Fertil Steril. 2003;79:639–40.
- 16. Cohen-Kettenis PT, van Goozen SH. Sex reassignment of adolescents transseuxals: a follow-up study. J Am Acad Child Adolesc Psychiatry. 1997;36(2):263–71.
- 17. Haraldsen IR, Dahl AA. Symptom profiles of gender dysphoric patients of transsexual type compared to patients with personality disorders and healthy adults. Acta Psychiatr Scand. 2000;102(4):276–81.
- 18. Cano C, Bergero T. Intervención Psicológica en una unidad de trastornos de la identidad de género: un desafío sanitario. In: Remor E, Arranz P, Ull S, editors. El psicólogo en el ámbito hospitalario. Bilbao: Desclée De Brouwer; 2003. p. 729–45.
- Aguado J, Ruíz MA, Mas B. Abusos sexuales a menores. Variables mediadoras y psicopatología asociada. Psicologemas. 2001;15:5–42.
- 20. Hales RE, Yudofsky SC, Talbott LE. Tratado de Psiquiatría. 2nd ed. Barcelona: Ancora; 1996.
- Roberts JE, Gotlib IH. Lifetime episodes of dysphoria: gender, early childhood loss and personality. Br J Clin Psychol. 1997;36(Pt 2):195–208.
- 22. Becerra Fernández A, de Luis Román DA, Piedrola Maroto G. Morbilidad en pacientes transexuales con auto-tratamiento hormonal para cambio de sexo. Med Clin (Barc). 1999;113(13):484–7.
- Cloninger CR, Martin RL, Guze SB, Clayton PJ. A prospective follow-up and family study of somatization in men and woman. Am J Psychiatry. 1986;143:873–8.
- 24. Widiger TA, Spitzer RL. Criticisms of DSM-III-R. Am J Psychiatry. 1989;146(4):566-7.
- 25. Wool CA, Barsky AJ. Do women somatize more than men? Gender differences in somatization. Psychosomatics. 1994;35:445–52.

26. Barsky AJ, Peekna HM, Borus JF. Somatic symptom reporting in women and men. J Gen Intern Med. 2001;16(4):266–75.

- 27. Gijsbers van Wijk CM, Huisman H, Kolk AM. Gender differences in physical symptoms and illness behavior. A health diary study. Soc Sci Med. 1999;49(8):1061–74.
- 28. Paras ML, Murad MH, Chen LP, Goranson EN, Sattler AL, Colbenson KM, et al. Sexual abuse and lifetime diagnosis of somatic disorders: a systematic review and meta-analysis. JAMA. 2009;302(5):550–61.
- 29. Organización Mundial de la Salud (OMS). Criterios diagnósticos y de investigación de los trastornos mentales y del comportamiento (CIE-10). Madrid: Meditor; 1993.
- 30. Barsky AJ, Wyshak G, Klerman GL, Latham KS. The prevalence of hypochondriasis in medical outpatients. Soc Psychiatry Psychiatr Epidemiol. 1990;25(2):89–94.
- 31. Vallejo Pareja MA. De los trastornos somatomorfos a los trastornos de síntomas somáticos y trastornos relacionados. Cuadernos de Medicina Psicosomática y Psiquiatría de Enlace. 2014:110:75–8.
- 32. Freud S. Fragmento de análisis de un caso de histeria (Dora) Sigmund Freud. Buenos Aires: Obras completes VII Amorrortu Editores; 1978.
- 33. Brown RJ. Psychological mechanisms of medically unexplained symptoms: an integrative conceptual model. Psychol Bull. 2004;130(5):793–812.
- 34. Alijotas J, Alegre J, Fernández-Solá J, Cots J, Panisello J, Peri J, et al. Documento de consenso sobre el diagnóstico del síndrome de fatiga crónica en Catalunya. Med Clin (Barc). 2002;118(2):73–6.
- 35. Claraco LM, Monreal A, García J. Manejo del paciente somatizador en atención primaria. Form Méd Cont. 1999;6(8):536–43.
- 36. Burin M. El malestar de las mujeres. La tranquilidad recetada. Buenos Aires: Paidós; 1990.
- 37. Romito P. Work and health in mothers of young children. Int J Health Serv. 1994;24(4):607–28.
- 38. Hankins JR. Gender and mental illness. Res Com Mental Health. 1990;6:183-201.
- 39. Vaillant GE. Theoretical hierarchy of adaptive ego mechanisms: a 30-year follow-up of 30 men selected for psychological health. Arch Gen Psychiatry. 24(2):107–18.
- 40. Lazare A. Current concepts in psychiatry. Conversion symptoms. New Engl J Med. 1981;305(13):745–8.
- 41. Wolfe F, Ross K, Anderson J, Russell I. Aspects of fibomyalgia in the general population: sex, pain threshold, and fibromyalgia symptoms. J Rheumatol. 1995;22:151–6.
- 42. Pawlikowska T, Chalder T, Hirsch S, Wallace P, Wright D, Wessely S. Population-based study of fatigue and phychological distress. BMJ. 1994;308:763–6.
- 43. Reich P, Gottfried LA. Factitious disorders in a teaching hospital. Ann Intern Med. 1983;99(2):240–7.
- 44. LoPiccolo CJ, Goodkin K, Baldewicz TT. Current issues in the diagnosis and management of malingering. Ann Med. 1999;31(3):166–74.
- 45. Wise MG, Ford CV. Factitious disorders. Prim Care. 1999;26(2):315–26.
- 46. Hurwitz TA. Idiogenic neurological deficits: conscious mechanisms in conversion symptoms. Neuropsychiatry Neurospychol Behav Neurol. 1989;1:301–8.
- 47. Cordess C, Cox M. Forensic psychotherapy: crime, psychodynamics & the offender patient. London: Jessica Kingsley Pub; 1995.
- 48. Rosenberg DA. Web of deceit: a literature review of Munchausen syndrome by proxy. Child Abuse Negl. 1987;11(4):547–63.



# Pathological Gambling: Clinical Gender Differences

35

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#### **Abstract**

Little is known yet about gender-related differences among pathological gamblers in clinical samples because available data on the etiology and treatment of pathological gambling (PG) have involved predominantly male patients. However, significant gender differences exist in the clinical presentation of pathological gambling. Female gamblers are older than men and more likely to be divorced or widowed and to have a lower annual income. Women became more dependent on bingo and men on slot machines. Gambling motivation and the course of illness for both sexes are also different. Female gamblers are more anxious and with a poorer self-esteem than male gamblers and more affected by depressive symptoms; in turn, men are more impulsive and higher sensation seekers than women and more affected by drug/alcohol abuse. The 70% of female gamblers reported being victims of intimate partner violence. There are no gender differences about

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the motivation for treatment. Future research should examine gambling behaviors and psychological functioning and suggest treatment approaches to address specific goals according to these gender-related differences.

#### 35.1 Introduction

Over the past several decades, there has been a significant increase in the availability of legalized gambling in developed countries. The increasing availability of Internet gambling through the uncontrolled presence of slot machines in bars and entertainment venues, along with the abundant supply of bingo, casinos, and more traditional games (football pools, sweepstakes, coupons, horse racing, etc.), has led to a considerable increase in pathological gambling [1].

Pathological gambling is characterized by loss of control over the game and by the establishment of a relationship of dependence. Gambling addiction is often accompanied by other disorders, such as alcohol abuse [2], depression [3], or personality disorders [4]. It is not, therefore, a single or isolated problem but a serious disorder that interferes negatively with the quality of life and emotional well-being of those affected and the people around them [5]. In fact, this condition is considered a serious public health problem [6].

For a long time, it was considered that pathological gambling, like other addictions, affects men more. In fact, the prevalence rate of problem gambling is at least double among men compared to women [7]. However, problems in gambling have increased among women in recent years [8], and pathological gambling in women is associated to poorer mental health [9]. In addition, women pathological gamblers are less likely to seek therapeutic help because women with gambling problems are perceived more negatively than men; thus, they are much more reluctant to recognize the problem. There is a double social moral in the gambling of women. Excessive gambling is tolerated in men in the early stages; however, women are classified quickly as vicious, leading to a greater concealment of the problem and therefore greater resistance to seeking therapeutic help [10]. Therefore, pathological gambling is not just a problem for men. In fact, helplessness against this onslaught of games of chance particularly affects teenagers and more psychologically vulnerable people. For many women and teens, recreational game play has gone from a hobby to an addiction, with many additional problems: debts, school failure, family crises, problems with the law, etc. [11].

The psychological process that leads both sexes to acquire gambling behavior and the subsequent onset of pathological gambling is similar. That is, gamblers of both sexes are characterized by an emotional dependence on gambling, a loss of control, and a negative interference in the normal functioning of daily life [12], but they adopt differential profiles by gender. Differences in pathological gambling in women relative to men are manifested both in sociodemographic and gambling variables—that is, the gambling types involved, the motivation for gambling, and the acquisition and development of the disorder—as well as in the

psychopathological and personality factors and the impact of everyday life. The attitude toward treatment and therapeutic needs is also different in each case.

## 35.2 Differential Clinical Profile of Pathological Gambling in Man and Woman

#### 35.2.1 Sociodemographic Characteristics

Men and women gamblers differ in their sociodemographic profile. Overall, female gamblers were older than men. The most common age range for women is 45–65 years, that is, most are middle-aged women [9, 13–17]. By contrast, men are younger [9, 13–17], around 35 years old [13, 17] on average, and younger 30 [16]. In terms of marital status, both men and women are mainly married. However, women are more likely to be divorced or widowed and men to be single [9, 13, 14]. When the educational levels of gamblers are compared, there are no differences in terms of gender. Most men and women have had a primary education [13, 15]. Occupationally, most men and women are active. However, there is a higher percentage of women who remain in prolonged low work compared with men [9, 13, 15], with a lower socioeconomic status than male gamblers [9, 13]. Finally, familial support, however, is stronger in women than in men. Although female gamblers may be socially isolated more often than men, one reason for this controversial finding may be that the family in Spain is a powerful network and women have stronger bonds with relatives than men.

## 35.2.2 Gambling Variables

Gambling measures also reflect a wide range of gender-related differences.

#### 35.2.2.1 Types of Gambling

There are differences in the types of gambling chosen by men and women gamblers. Slot machines were the most popular gambling method for both women and men pathological gamblers. Men tend to engage in types of gambling that involve strategy or competition and especially those involving high sensation seeking, and they are more dependent on slot machine gambling. Women, however, have problems with nonstrategic types of gambling, i.e., passive and less interpersonal and interactive gambling [13, 17]. Considering the characteristics of women gamblers, in addition to some cultural factors (bingo being socially acceptable in Spain for women), the bingo atmosphere has been described as more suitable for them than other gambling options (comfortable social situation and optimal strategy for escaping from problems and isolation) [15, 18–21]. When women request the casinos and bingos prohibit them from entering, the risk of addiction on slot machines, however, increases, slot machines being the first choice for gambling and the bingo, the second option.

#### 35.2.2.2 Motivation for Gambling

The diversity in terms of gender is also reflected in the differences in motivations for gambling. Whereas male gamblers were motivated to easily make money through gambling and were influenced by peer pressure, women were more motivated to gamble in order to cope with loneliness and to escape from unpleasant emotions, such as negative mood [14, 16, 17]. Even gambling may be used to regulate any kind of negative emotional states associated with life events, dissatisfaction, and frustrations [22]. An alternative explanation is that problem gambling may exacerbate depressive symptoms more severely in women than men [23]. The findings of some studies highlight a stronger relationship between depressed mood and gambling pathology in women compared with men [9]. The nature of this relationship (problem gambling and depression) remains incompletely understood. More research is needed to identify gender-specific factors in this area.

#### 35.2.2.3 Course of Illness

Regarding the course of illness, there are some significant aspect differentials between men and women gamblers. As occurs in other addictive behaviors (alcohol, smoking, etc.), women have a later age at onset of both gambling and the disorder. Men are more frequently early-onset gamblers and thus are more quickly affected by pathological gambling than women. However, women, even though they begin to gamble later than men, become dependent on gambling more quickly than men [13, 15]. The explanation for this issue is controversial. Several studies have justified these findings from sociocultural aspects [24] to psychopathological [25] or even neurobiological factors [26].

In terms of pathological gambling severity, there were no differences between men and women. Likewise, many pathological gamblers accumulated large debts, but no major differences by gender were found (58.8% in men versus 42% in women) [13, 14].

### 35.2.2.4 Predictors of Pathological Gambling Severity

Although certain predictors of pathological gambling are common to both men and women, there are gender differences in terms of pathological gambling severity. Specifically, depression is a predictor of pathological gambling severity in men [26–29]. There is no common consensus on whether patients suffer from depression before or after their gambling problem. It has been suggested that gambling can serve to enhance mood [30]. However, other authors have argued that depression arises as result of gambling-related problems [31], which would explain the higher incidence of depressive symptoms, suicidal ideation, and suicide attempts in this group [32, 33].

For female gamblers, duration of gambling disorder is a predictor of pathological gambling (PG) severity [29]. Early-onset gamblers had participated in gambling activities for a greater number of years, which may be associated with the development of psychiatric problems over the course of their lifetimes [34]. The development of disorder in women is faster when they have to cope with adverse life

circumstances, such as loneliness or problems with the partner or children. Thus, PG usually appears in women in middle age or late life, controlled by negative reinforcement (avoidance of emotional distress and escape from everyday frustrations). A faster progression to PG also occurs when women lack self-management, communication, and problem-solving skills or when they have few resources to cope with psychological stress situations, most of all if the social support is low and the use of leisure time is unsatisfactory [13, 35].

With regard to gender differences in more severe pathological gamblers, female gamblers were older than male gamblers and started gambling later in life but became dependent on gambling more quickly. This difference in the progress of the disorder (the telescoping effect) has also been found in other studies related to gambling [18, 36–39], but it is not so clear in the case of alcohol dependence [40]. The explanation of the telescoping effect is controversial. Several studies have justified these findings on the basis of sociocultural [24], psychopathological [25], or even neurobiological factors [26].

Family support was also associated with female gamblers in the more severe subgroup [29]. Although female gamblers may fall into social isolation more often than men, one reason for this controversial finding may be that, as already mentioned, the family in Spain is a strong network and that women bond better with relatives than men [13].

In turn, alcohol abuse is associated with the subgroup of severe male gamblers [29]. Alcohol abuse is a common comorbid problem related to PG, and numerous studies have reported that there is a more frequent comorbid problem in male gamblers than in female ones [27, 37, 38, 41–43]. In fact, there is more genetic vulnerability to alcohol dependence and gambling in men [44], which is related to impulsivity in male gamblers. Impulsive behavior leads them to gambling more and to having higher financial losses and more legal problems related to gambling [39, 45].

Finally, although in general low self-esteem is more likely to be associated with female gamblers [37, 39, 46], in the subgroup of more severe gamblers, this variable is associated with men [29].

## 35.2.3 Personality Variables

Regarding personality variables, both men and women show a high level of impulsivity. However, as far as the difference between the genders is concerned, women are more anxious and suffered from a poorer self-esteem than male gamblers. Men, by contrast, are more impulsive and higher sensation seekers than women [13, 47]. The high level of sensation seeking in men [48] may facilitate the initial contact and persistence with the gambling [46]. Moreover, the high level of anxiety/trait in women may be related to avoidance/exhaustive behaviors and anticipatory concern about a possible danger. The low self-esteem is also associated with a low level of autonomy and self-control, including skills such as responsibility for their own decisions, the availability of coping resources, self-esteem, and efficacy [39].

### 35.2.4 Psychopathological Variables

Pathological gamblers have a remarkable history of several other psychiatric disorders (51.5%), which are likely to be key factors in developing harmful patterns of gambling. This fact affected women (60.8%) more than men (40.4%) [13].

Specifically, women have a higher level of depressive symptoms [9, 13, 15]. In fact, women show a greater history of suicide attempts than men, depression, with the risk of suicide, being the most common comorbid disorder in female gamblers, especially when gambling involves a phase of deterioration, which happens in the phases of loss, despair, and surrender [37].

The relationship between depression and pathological gambling in women can be explained by three factors [49]: (a) gambling is a disorder that occurs at higher rates among women in the general population and, therefore, also between pathological women players, (b) sometimes the gambling is the "escape" from the daily problems that are not seen out, and (c) the gambling can serve as a trigger to overcome a depressed mood. However, this excessive gambling will cause other, more serious problems in the future, maintaining and even worsening depression and provoking the problem of pathological gambling. Depression in women is also more common when there is intimate partner violence or when the patient feels overwhelmed by family responsibilities (children's education, precarious economic situation, rejection of the couple, etc.), which entails greater feelings of loneliness and adaptive difficulties [50].

Therefore, depression in women may be a predisposing factor for gambling, suggesting that women with depressive symptoms may be involved in gambling, accentuating the depression with the unfavorable impact of gambling [11]. Thus, a vicious circle that is very hard to get out of is created. In men, however, depression may be secondary to gambling, linked to negative consequences of any kind [50].

It has also been suggested that women gamblers have a higher level of anxiety compared with men [9, 15, 43]. This would reinforce the idea that women gamble to escape their negative emotions, developing pathological gambling in an attempt to relieve anxiety-depressive symptoms [15].

On the other hand, men abuse alcohol and other drugs more than women do [13, 42, 51, 52]. However, there are conflicting results. Some studies indicate that both men and women gamblers show similar rates with respect to the abuse of tobacco, alcohol, and other drugs [17, 53, 54]. Other studies, however, argue that the comorbidity between pathological gambling and abuse of alcohol and other drugs is associated with women [18, 55].

## 35.3 Impact of Pathological Gambling

Regarding the impact of pathological gambling, both in men and in women gamblers, pathological gambling has a number of negative consequences in different areas of life (personal, family, social, labor, economic, and legal). However, these problems manifest differently in men and women.

Personally, pathological gambling is often accompanied with other psychiatric comorbidity, such as alcohol and drug use in men and depression in women. For women gamblers, the suffering caused by financial losses and the insecurity of the addiction being discovered generate a state of irritability, nervousness, and emotional instability. The lies and delusions related to the gambling also accentuate the feeling of worthlessness and impair the self-esteem of women gamblers, facilitating the emergence of a depressed mood, which sometimes exists, but in others, it is a result of personal degradation and the family and social rejection experienced by women because of the addiction [50].

Regarding the negative impact on the family, and more specifically in the relationship, in the case of the woman gamblers, the reaction of the husband or partner is much more intransigent than when he is having problems with the gambling [56]. In this context, there is intimate partner violence in 70% of women gamblers (especially among women who are in situations of prolonged lows and/or jubilation) [13]. Gambling may be a way of escaping from a violent relationship, but that intimate partner violence may be also related to domestic conflict caused or exacerbated by financial or other stressors directly associated with gambling activities. All these findings highlight the importance of routinely screening gambling patients for anger and intimate partner violence and disrupted behavior in children and the need to develop public policy, prevention, and treatment programs to address these problems [57].

On the other hand, the negative social stigma, accentuated in the case of women, contributes to greater social isolation, which is the result of the attempt of women to hide their reality to other people and the social rejection of people around [50]. However, women have more family support than men (92% of cases). This may be due to the skewed ideas of women with regard to the availability of perceived support and actual support. Another explanation may be also related to the fact that women may have the support of other significant family-level people (brothers, sons, uncles, etc.) and the support of the partner.

Moreover, the emotional consequences associated with gambling problems manifest as feelings of guilt, shame, or fear. In general, women show more shame and guilt compared to men [58, 59], although other studies have found that both men and women report feelings of guilt for playing that reach a very high percentage (92.3% and 96.1%, respectively) [13].

Finally, with regard to the consequences at the working level, there is a higher percentage of women who remain in a state of prolonged low (19%) compared with men (6%). Moreover, both men and women experience a variety of financial problems and high rates of gambling-related debt. 58.4% of the gamblers of both sexes show significant debts [13].

#### 35.4 Motivation for Treatment

As is well-known [60], many pathological gamblers do not seek treatment. Motivating pathological gamblers to enter and adhere to treatment is difficult. Even though pathological gamblers decide to seek treatment, they are not uniformly

committed to change. In fact, the dropout rates during assessment were six times higher than those of a clinical control of nonaddict treatment-seeker patients [13].

Some studies indicate that women gamblers come to less frequently than men to treatment centers seeking therapeutic help [61] and are therefore less likely to receive treatment for a gambling problem [62]. However, the percentage of pathological women gamblers in the population is greater than in treatment centers [63]. This is especially problematic, as women experience a greater negative impact as a result of pathological gambling compared with men [19].

This pattern of behavior is far from what usually happens in mental health centers with other psychiatric disorders [64] or primary care services [65], where prevalence rates are higher in women, which means that, in general, they seek therapeutic help further and faster than men. However, some studies have found that it is more likely that female gamblers (32%) seek therapeutic help compared with men (13%) [66]. This finding is consistent with other studies in which the rate of therapeutic help finding is also higher among women than among men [20, 42].

Crisp et al. [67] found that the proportion of men and women attending treatment centers is similar. However, women were more likely to complete treatment and resolve the gambling problem. In the study conducted by Echeburúa et al. [13], however, there were no gender-related differences among dropouts.

High rates of treatment seeking among women may be explained by the fact that women, unlike men, although they initially hide the problem, once they recognize it, believe that professional help is needed [68].

Moreover, women have a more positive attitude toward mental health in general, as well as a greater willingness to seek therapy. They therefore tend to show comfort when talking about problems with a professional and do not feel embarrassed about the need to seek help [69].

Women often perform gambling behavior in secret. The negative social stigma, particularly marked in women, helps to hide problem recognition and delay seeking therapeutic help. Generally, the female gambler seeks treatment alone. Unlike male gamblers, who are usually accompanied by some of their close relatives (spouse or mother), the woman attends by herself and has an active collaboration in the treatment of a spouse or adult children [70]. Usually, women tend to seek treatment after having a very serious episode of gambling and come very emotionally affected to the centers [71]. It is often the deterioration of the family relationship that is the critical variable that determines seeking of therapeutic help. In contrast to male gamblers, who adopt a more egocentric, arrogant, and denying attitude, women gamblers, once they have taken the first step toward seeking help, are more aware of what has happened and show great shame [49].

Generally, most pathological gamblers seek help when they have health or psychological problems or face financial ruin, rather than being motivated by the gradual recognition of the problem behavior. Major depression and the inability to pay bills or to return money loans are the main sources of their problems and the critical factor for change. The main obstacles to seeking therapeutic help are psychological factors such as denial of the problem or embarrassment and the belief that they will finally be able to gain control by themselves or they will be able to make more money out of their difficulties [72].

These impediments hinder the seeking of therapeutic help in women more than in men, making them initially more reluctant to resort to assistive devices [73]. Personal and interpersonal variables can interfere with access to treatment seeking in female gamblers. The influence of her intimate partner, the stage of recovery, the feelings of shame, guilt and fear, among other things, may give rise to denial that a problem exists, delaying an opportunity of going for treatment [58]. Not knowing what help is available or believing that her problem is simply financial can also lead women to feel ashamed and that they have to cope alone with the countless financial problems. Moreover, the socio-environmental factors, such as lack of social or family support, lack of financial resources, the negative social stigma, and the lack of specialized training by professionals, can also hinder or delay therapy seeking for women [74]. In response to these limitations, there is a need to increase the visibility in terms of problem gambling, especially in women, and to increase treatment services and specialized personnel in the area of pathological gambling [58].

#### 35.5 Conclusions

There are relevant gender-related differences in demographics, gambling measures, psychological functioning, and motivation for treatment in pathological gamblers, which may be taken into account when planning an effective intervention [13] (Table 35.1).

These findings suggest that gender carries factors determining distinct pathogenetic mechanisms in pathological gambling. There are many explanations for

|  | Women                    | Men                          |
|--|--------------------------|------------------------------|
| Sociodemographic factors                     |                          | ·                            |
| Age  | 46–55                    | 31–45                        |
| Marital status                               | Married                  | Single                       |
| Educational level                            | Primary studies          |                              |
| Employment status                            | Prolonged low            | Active                       |
| Socioeconomic level                          | Lower                    | Medium                       |
| Personality variables                        | Anxiety<br>Self-esteem   | Sensation seeking            |
| Psychopathological variables                 | Depression               | Alcohol and other drug abuse |
| Gambling variables                           |                          |                              |
| Types of gambling                            | Bingo                    | Gambling machines            |
| Motivation for gambling                      | Loneliness/escape        | Social pressure              |
|  |                          | Winnings                     |
| Course of illness                            | Late onset               | Early onset                  |
|  | Faster progression       | Slower progression           |
| Predictors of pathological gambling severity | Duration of the disorder | Depression                   |

**Table 35.1** Gender differences among pathological gamblers [13]

gender playing patterns. Among the explanations put forth are genetics [75], social norms [39], motivations [76], impulsivity [77], and finances [78]. It is important, however, not merely to explain gender differences about prejudices with regard to the way men and women "are." Such gross generalizations are unlikely to maintain any predictive power over time as gender roles change [21].

Treatment of pathological gambling must address the gender differences that relate to gambling behavior. Currently, treatment programs for PG are primarily designed for men [79] and are not adjusted to the specific characteristics of women gamblers [80]. The need to establish an empathic relationship and adapt the therapy to their specific problems and requirements is critical to successful treatment [10].

## 35.6 Future Challenges

The main challenge for the future in the field of pathological gambling is to develop treatment programs specifically geared toward the different needs of men and women gamblers. The treatment oriented toward women gamblers should focus on the gambling, in addition to other related pathological deficits experienced by women gamblers, such as depression, loneliness, low self-esteem, or couples therapy. It is very important to design interventions that promote a new lifestyle that gives them more social reinforcement, greater economic autonomy, incorporation into the workforce, and higher professional qualifications, which all help these women to overcome their social isolation [81].

Considering the most pronounced impact in the case of women in the family and couples, treatment should also include assessment and counseling on gender violence and guidelines for the education of children, as well as social skills and problem-solving training [61].

Moreover, support groups for women gamblers represent an important aspect of treatment because women addicted to gambling often do not have family/social support and experience social isolation [74].

A key aspect is also to design motivational strategies to attract women to treatment centers. Having early detection instruments (for application, e.g., in the field of primary care centers or social services), given the presence of somatic symptoms in women gamblers, is fundamental.

Finally, a suggested line of research is to develop intervention programs for accompanying women gamblers (couples, daughters, or mothers) so that efforts to attract treatment to patients or to act as co-therapists are as effective as possible [50].

#### References

- Labrador FJ, Becoña E. Conductas adictivas. Teoría, evaluación y tratamiento. In: Graña JL, coordinator. Juego patológico: Aspectos epidemiológicos y teorías explicativas. Madrid: Debate; 1994. p. 495–520.
- Kessler RC, Hwang I, LaBrie R, Petukhova M, Sampson NA, Winters KC, Shaffer HJ. DSM-IV pathological gambling in the National Comorbidity Survey Replication. Psychol Med. 2008;38:1351–60.

- Kim SW, Grant JE, Eckert ED, Faris PL, Hartman BK. Pathological gambling and mood disorders: clinical associations and treatment implications. J Affect Disord. 2006;92:109–16.
- 4. Echeburúa E, Fernández-Montalvo J. Are there more personality disorders in treatment-seekers pathological gamblers than in other kind of patients? A comparative study between the IPDE and the MCMI. Int J Clin Health Psychol. 2008;8:53–64.
- 5. Fernández-Montalvo J, Echeburúa E. Pathological gambling and personality disorders: an exploratory study with the IPDE. J Pers Disord. 2004;18:500–5.
- Muñoz-Molina Y. Meta-análisis sobre juego patológico. 1997–2007. Rev Salud Públ. 2008;10:150–9.
- 7. Williams RJ, Volberg RA, Stevens R. The population prevalence of problem gambling: methodological influences, standardized, rates, jurisdictional differences, and worldwide trends. Ontario Problem Gambling Research Centre and the Ontario Ministry of Health and Long Term Care: Guelph; 2012.
- Abbott MW. Do EGMs and problem gambling go together like a horse and carriage? Gambling Res. 2006;18:7–38.
- Desai RA, Potenza MN. Gender differences in the associations between past-year gambling problems and psychiatric disorders. Soc Psychiatry Psychiatr Epidemiol. 2008;43:173–83.
- 10. Corral P. Ludopatía y mujer. Mente y cerebro. 2007;22:2-7.
- 11. Becoña E, Míguez M, Vázquez F. El juego problema en los estudiantes de enseñanza secundaria de 14 y más años de Galicia. Psicothema. 2001;13:551–6.
- 12. Echeburúa E, Báez C. Enfoques terepeúticos en el tratamiento psicológico del juego patológico. Rev Esp Ter Comport. 1991;8:127–46.
- 13. Echeburúa E, González-Ortega I, de Corral P, Polo-López R. Clinical gender differences among adult pathological gamblers seeking treatment. J Gambl Stud. 2011;27:215–27.
- 14. Weiss L, Petry N. Psychometric properties of the inventory of gambling situations with a focus on gender and age differences. J Nerv Ment Dis. 2008;196:321–8.
- Granero R, Penelo E, Martínez-Giménez R, Alvarez-Moya EM, Aymamí N, Bueno B, et al. Sex differences among treatment-seeking adult pathologic gamblers. Compr Psychiatry. 2009;50:173–80.
- Hing N, Russell A, Tolchard B, Nower L. Risk factors for gambling problems: an analysis by gender. J Gambl Stud. 2016;32:511–34.
- 17. Bonnaire C, Bungener C, Varescon I. Sensation seeking in a community sample of French gamblers: comparison between strategic and non-strategic gamblers. Psych Res. 2017;250:1–9.
- 18. Potenza MN, Steinberg MA, Wu R, Rounsaville BJ, O'Malley SS. Characteristics of older adult problem gamblers calling a gambling helpline. J Gambl Stud. 2006;22:241–54.
- Grant J, Von Kim S. Gender differences in pathological gamblers seeking medication treatment. Compr Psychiatry. 2002;43:56–62.
- Crisp BR, Thomas SA, Jackson AC, Smith S, Borrell J, Ho W, et al. Not the same: a comparison of female and male clients seeking treatment from problem gambling counselling services.
   J Gambl Stud. 2004;22:81–99.
- 21. LaPlante DA, Nelson SE, LaBrie RA, Shaffer HJ. Men & women playing games: gender and the gambling preferences of Iowa gambling treatment program participants. J Gambl Stud. 2006;22:65–80.
- 22. Scannell ED, Quirk MM, Smith K, Maddern R, Dickerson M. Females' coping styles and control over poker machine gambling. J Gambl Stud. 2000;16:417–32.
- Lesieur HR, Blume SB. When lady luck loses: women and compulsive gambling. In: Van Den Bergh N, editor. Feminist perspectives on addictions. New York: Springer; 1991. p. 181–97.
- 24. Cunningham-Williams RM, Cottler LB, Comptom WM, Spitznagel EL. Taking chances: problem gamblers and mental health disorders: results from the St. Louis epidemiologic catchment area study. Am J Public Health. 1998;88:1093–6.
- 25. Lynch WJ, Maciejewski PK, Potenza MN. Psychiatric correlates of gambling in adolescents and young adults grouped by age at gambling. Arch Gen Psychiatry. 2004;61:1116–22.
- Potenza MN, Xian H, Shah K, Scherrer JF, Eisen SA. Shared genetic contributions to pathological gambling and major depression in men. Arch Gen Psychiatry. 2005;62:1015–21.

- 27. Ibáñez A, Blanco C, Donahue E, et al. Psychiatric comorbidity in pathological gamblers seeking treatment. Am J Psychiatry. 2001;158:1733–5.
- 28. Beck AT, Steer RA. Manual for the Beck depression inventory. San Antonio: Psychological Corporation: 1993.
- 29. González-Ortega I, Echeburúa E, de Corral P, Polo-López R, Alberich S. Predictors of pathological gambling severity taking gender differences into account. Eur Addict Res. 2013;19:146–54.
- Roy A, Custer R, Lorenz V, Linnoila M. Depressed pathological gamblers. Acta Psychiatr Scand. 1988;77:163–5.
- 31. McCormick RA, Taber JI. Attributional style in pathological gamblers in treatment. J Abnorm Psychol. 1988;297:368–70.
- 32. Lesieur HR. The chase. Career of the compulsive gambler. Cambridge: Schenkman Books; 1984.
- 33. Taber JT, McCormick RA, Ramirez LF. The prevalence and impact of major life stressors among pathological gamblers. Int J Addict. 1987;22:71–9.
- 34. Burge AN, Alesia N. Age of gambling initiation and severity of psychiatric, family/social, and substance abuse problems among treatment-seeking pathological gamblers. UCHC Graduate School Masters Theses. Paper 2. 2005.
- 35. Echeburúa E, González-Ortega I, Corral P, Polo-López R. Pathological gamblers and a non-psychiatric control group taking gender differences into account. Span J Psychol. 2013;16(e2):1–9.
- Grant JE, Kim SW, Odlaug BL, Buchanan SN, Potenza MN. Late-onset pathological gambling: clinical correlates and gender differences. J Psychiatr Res. 2009;43:380–7.
- 37. Ibáñez A, Blanco C, Moreryra P, Saiz J. Gender differences in pathological gambling. J Clin Psychiatry. 2003;64:295–301.
- Tavares H, Martins SS, Lobo DS, Silveira CM, Gentil V, Hodgins D. Factors at play in faster progression for female pathological gamblers: an exploratory analysis. J Clin Psychiatry. 2003;64:433–8.
- 39. Ladd GT, Petry NM. Gender differences among pathological gamblers seeking treatment. Exp Clin Psychopharmacol. 2002;10:302–9.
- 40. Keyes KM, Martins SS, Blanco C, Hasin DS. Telescoping and gender differences in alcohol dependence: new evidence from two national surveys. Am J Psychiatry. 2010;167:969–76.
- 41. Welte JW, Barnes GM, Wieczorek WF, Tidwell M, Parker J. Alcohol and gambling pathology among US adults: Prevalence, demographic patterns, and comorbidity. J Stud Alcohol. 2001;62:706–12.
- 42. Blanco C, Hasin DS, Petry N, Stinson FS, Grant BF. Sex differences in subclinical and DSM-IV pathological gambling: results from the national epidemiologic survey on alcohol and related conditions. Psychol Med. 2006;36:943–53.
- 43. Wenzel HG, Dahl AA. Female pathological gamblers—a critical review of the clinical findings. Int J Ment Health Addict. 2009;7:190–202.
- 44. Slutske WS, Eisen S, True WR, Lyons MJ, Goldberg J, Tsuang M. Common genetic vulnerability for pathological gambling and alcohol dependence in men. Arch Gen Psychiatry. 2000;57:666–74.
- 45. Nelson SE, LaPlante DA, LaBrie RA, Shaffer HJ. The proxy effect: gender and gambling problem trajectories of Iowa gambling treatment program participants. J Gambl Stud. 2006;22:221–40.
- 46. Álvarez-Moya EM, Jiménez-Murcia S, Granero R, Vallejo J, Krug I, Bulik CM, et al. Comparison of personality risk factors in bulimia nervosa and pathological gambling. Compr Psychiatry. 2007;48:452–7.
- 47. Merkouris SS, Thomas AC, Shandley KA, Rodda SN, Oldenhof E, Dowling NA. An update on gender differences on the characteristics associated with problem gambling: a systematic review. Curr Addict Rep. 2016;3:254–67.
- 48. Blaszczynski A, Steel Z, McConaghy N. Impulsivity in pathological gambling: the antisocial impulsivity. Addiction. 1997;92:75–87.

- Becoña E. Características de la mujer jugadora patológica. Rev Psicopatol Psicol Clín. 1997:2:21–34.
- 50. Corral P, Echeburúa E, Irureta M. Perfil psicopatológico diferencial de las mujeres ludópatas: implicaciones para el tratamiento. Anál Modif Conducta. 2005;31:539–56.
- 51. Dannon PN, Lowengrub K, Aizer A, Kotler M. Pathological gambling: comorbid psychiatric diagnoses in patients and their families. Isr J Psychiatry Relat Sci. 2006;43:88–92.
- 52. Desai RA, Maciejewski PK, Pantalon MV, Potenza MN. Gender differences among recreational gamblers: association with the frequency of alcohol use. Psychol Addict Behav. 2006;20:145–53.
- 53. Grant JE, Potenza MN. Tobacco use and pathological gambling. Ann Clin Psychiatry. 2005;17:237–41.
- Martins SS, Tavares H, da Silva Lobo DS, Galett AM, Gentil V. Pathological gambling, gender, and risk-taking behaviors. Addiction. 2004;29:1231–5.
- Petry NM, Stinson FS, Grant BF. Comorbidity of DSM-IV pathological gambling and other psychiatric disorders: results from the National Epidemiologic Survey on Alcohol and Related Conditions. J Clin Psychiatry. 2005;66:564–74.
- 56. Custer RL, Milt H. When luck runs out. New York: Facts on File Pub; 1985.
- 57. Picó-Alfonso MA, Echeburuúa E, Martínez M. Personality disorder symptoms in women as a result of chronic intimate male partner violence. J Fam Violence. 2008;23:577–88.
- 58. Piquette-Tomei N, Dwyer SC, Norman E, McCaslin E, Burnet J. Women problem gamblers want more. Saskatchewan Notes (Canadian Centre for Policy Alternatives–SK). 2007;6:1–4.
- Kushnir V, Godinho A, Hodgins DC, Hendershot CS, Cunningham JA. Gender differences in self-conscious emotions and motivation to quit gambling. J Gambling Stud. 2016;32:969–83.
- 60. Hodgins DC, Currie SR, El-Guebaly N. Motivational enhancement and self-help treatments for problem gambling. J Consult Clin Psychol. 2001;69:50–7.
- 61. Ciarrocchi J. Counseling problem gamblers: a self regulated manual for individual and family therapists. San Diego, CA: Academic Press; 2002.
- 62. Urbanoski KA, Rush BR. Characteristics of people seeking treatment for problem gambling in Ontario: trends from 1998 to 2002. J Gambl Stud. 2006;16:1–21.
- 63. Echeburúa E, Báez C, Fernández-Montalvo J, Páez D. El Cuestionario de Juego de Soath Oaks (SOGS): validación española. Anál Modif Conducta. 1994;20:769–91.
- 64. Wang PS, Lane M, Olfson M, Pincus HA, Wells KB, Kessler RC. Twelve-month use of mental health services in the United States: results from the National Comorbidity Survey replication. Arch Gen Psychiatry. 2005;62:629–40.
- 65. Smith JA, Braunack-Mayer A, Wittert G. What do we know about men's help-seeking and health service use? Med J Aust. 2006;184:81–3.
- 66. Pulford J, Bellringer M, Abbott M, Clarke D, Hodgins D, Williams J. Barriers to helpseeking for a gambling problem: the experiences of gamblers who have sought specialist assistance and the perceptions of those who have not. J Gambl Stud. 2009;25:33–48.
- 67. Crisp B, Thomas S, Jackson A, Thomason N, Smith S, Borrel J, et al. Sex differences in the treatment needs and outcomes of problem gamblers. Res Soc Work Pract. 2000;10:229–42.
- 68. Kessler RC, Brown RL, Broman CL. Sex differences in psychiatric help-seeking: evidence from four large-scale surveys. J Health Soc Behav. 1981;22:49–64.
- 69. Mojtabai R. Americans' attitudes toward mental health treatment-seeking: 1990–2003. Psychiatr Serv. 2007;58:642–51.
- 70. Arbinaga F. La mujer con problemas en los juegos de apuesta: una aproximación desde los estudios epidemiológicos realizados en nuestro país y el análisis de nuevos datos sobre un grupo de mujeres en Punta Umbría (Huelva). Psicologemas. 2001;15:133–52.
- Echeburúa E. Nuevas fronteras en el estudio del juego patológico. Madrid: Fundación Ramón Areces; 2006.
- Evans L, Delfabbro P. Motivators for change and barriers to help-seeking in Australian problem gamblers. J Gambl Stud. 2005;21:133–55.
- 73. Rush B, Moxam RS, Urbanoski KA. Characteristics of people seeking help from specialized programs for the treatment of problem gambling in Ontario. J Gambl Issues. 2002;6:1–21.

- 74. Boughton R, Brewstern J. Voices of women who gamble in Ontario: a survey of women's gambling, barriers to treatment and treatment service needs. Toronto: Ontario Ministry of Health and Long-Term Care; 2002.
- 75. Winters KC, Rich T. A twin study of adult gambling behavior. J Gambl Stud. 1998;14:213–25.
- 76. Trevorrow K, Moore S. The association between loneliness, social isolation and women's electronic gaming machine gambling. J Gambl Stud. 1998;14:263–84.
- 77. Langewisch MW, Frisch G. Gambling behaviour and pathology in relation to impulsivity, sensation seeking, and risk behaviour in male of college students. J Gambl Stud. 1998;14:245–62.
- 78. Hing N, Breen H. Profiling lady luck: an empirical study of gambling and problem gambling amongst female club members. J Gambl Stud. 2001;17:47–69.
- 79. American Psychological Association. Guidelines for psychological practice with girls and women. Am Psychol. 2007;62:949–79.
- Tavares H, Zilberman ML, Beites FJ, Gentil V. Gender differences in gambling progression. J Gambl Stud. 2001;17:151–9.
- 81. Llinares MC, Santos P, Albiach C, Camacho I, Palau C. Diferencias de sexo en adictos a las máquinas tragaperras. Adicciones. 2006;18:371–6.

## **Part VI**

## Psychopathology, Art, and Gender



## **Art Therapy and Gender**

36

## Belén Sanz-Aránguez Ávila and María del Río Diéguez

#### **Abstract**

The intent of this text is to show how the artistic medium brings an experiential framework into play. This framework facilitates the integration of sensorial, affective, cognitive, and relational elements, wherein it is possible to address some of the difficulties derived from the patriarchal structure inherent to Western societies.

Many of the creative processes developed within the framework of the therapeutic device we are proposing, which have proven to be key in initiating significant individual subjectivity, must be observed from a gender perspective in order to be understood and addressed from that "network of beliefs, personality traits, attitudes, values, behaviors and activities that differentiate men from women" (Burin & Meler, 2000, p. 23) [Burin M, Meler I, Varones. Género y subjetividad masculina (Men. Gender and masculine subjectivity), Paidós, Buenos Aires, 2000].

We will take these processes, insofar as they are discursive inscriptions allowing to reframe formulas regarding power, control, and regulation which, a priori, appear to be unshakeable, as the axes of our presentation.

#### 36.1 Part 1

We will show these processes through several clinical examples; however, before doing so, we must pause and consider a few aspects.

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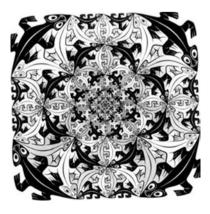
Artistic languages, due to their liberalising condition and illogical nature, are
excellent pathways to develop personal, singular interpersonal, flexible and
capacitating resources; they bring one to unusual levels of conscience, unlike
those from whence meaning tends to be given to problems, and they promote the
development of individual subjectivity based on positions of self-determination,
freedom and spontaneity.

The artistic medium is symbolically and factually engraved in that which is real, both as a language and as an action. It interposes a world without defined borders or a previous shape between the being and the world, allowing one to integrate territories of a different nature, even when they have no margins in common. A place where the creative act is possible, the event by means of which a subject's imaginary goes out to find what the world has to offer them and, from there, constructs a figure, a symbol, a cultural artifact that links those two realities which, up until then, flowed separately: a *bridge*. It enables a pathway that connects two differentiated, yet interdependent experiential spaces, turning their discontinuity into continuity, making it possible to go from *shore to shore* without any loss in demarcation, limit, shape, or content.

The text of art is not a linear discourse but rather a maze of dialogues between thought and material, the inside and the out, memory and time, the body and space, and impulse and action. Preparing oneself for artistic creation requires a singular, differentiated operation: setting aside, at least for a moment, one's prejudices and listening to one's own discursive practices. Putting a pen to a blank page is not the same as holding a brush.

Custom, history, and habit bequeath us with a perspective of the human being that leads us to think of its nature in terms of all or nothing and implies the existence of pairs of unquestionable realities defined by opposition: man/woman, ill/healthy, or psyche/body. However, as occurs when we contemplate a work by Escher, it is impossible to only pay attention to one of the figurative orders shown to us by the piece without needing to renounce its contemplation. The complexity brought by the duality in composition to the ensemble is not resolved by exclusion; on the contrary, only one capable of regarding the work in its ensemble as non-dual, but rather integrated, can understand it in its simplicity and apprehend its endless movement and the wonder of its self-engendering (Fig. 36.1).

**Fig. 36.1** Author: Maurits Cornelis Escher



The pretense of depriving psychopathology of its contextual dimension means renouncing the reality that is the person. The body of psychopathology cannot be an ordered ensemble of neurons, hormones, structures, and substances. No such body exists if a physical, relational, social, and theoretical context from whence to refer to it does not exist. The body is also a representation, a formula based on language. It is also an experiential ensemble or ideological concept:

Corporal space can be distinguished from exterior space and envelop its parts instead of unfolding them, because this space is the darkness in the room necessary for clarity of the spectacle, the depths of somnolence or the reserve of vague potency over which the gesture and its objective stand out, the non-being zone before which precise beings, figures and points may appear.

(Merleau-Ponty, 1999: 117) [2]

We must be capable of paying attention to the body, not as a surface to be demarked but rather a place that is theoretical, political, affective, aesthetic, sensory, relational, etc., and also take into account that, in this sense, the limitations imposed on thought by logical discourse are not dismissible.

2. Experience and language. In addressing mental illness with psychotherapy, "words" and logical thought have taken precedence as preferred methods. This implies that a person is capable of using them. In other words, that the person is disposed to construct and be constructed based on said logical thought, and equipped with language that allows them "to tell and be told based on words."

However, with some pathologies or with determined aspects related to them, experiences take place that are far from capable of being constructed as structured thoughts, and they cannot be approached with verbal language. On occasions, these experiences are disassociated from cognition and affect and remain in psychic space as flashbacks that are only accessible on a sensory level.

Within this context, we ask ourselves as to the viability of an expressive-communicational process that is not ruled by cognition, implying what some authors refer to as bottom-to-top processing (Ogden, 2009), allowing access to "important regulating, sensorial-motor, holistic, autobiographic, stress-reducing functions, based on images inherent to non-verbal processing modalities" (Siegel in the prologue to Odgen, 2009:16). This is a process that implies cognitive and affective levels but also physiological, sensorial, motor, social, and cultural levels.

Human beings, just like the other living beings, possess memory linked to the species and another memory related to their own existence as individuals. Both of them are essential for their biological survival, but for psychological survival, they need another memory, interlinked with their relational, cultural and transcendent dimension. Thanks to the latter, it is possible for them to make experience something lived, to transpose affect, knowledge, discourses, and the unconscious within that which is sensory, generating spaces and relationships that give meaning to their everyday life. In essence, the work of an artist consists of transforming feelings into something visible, making an ensemble of inscriptions on the outside, strokes, movements, volumes, etc., which allow them to link their memory to the memory of the world in an explicit and long-lasting fashion.

One might say that all artistic products imply a certain symbolization, but also implicated therein are movement, the footprint of that movement, the memory over which it passes, and the memory proposed within as a new representational configuration. Said movement, understood as an exteriorization process, thanks to which that which is sensitive is spatially and temporally dimensioned, transforms the thought that it represents, thereby affecting perception in and of itself. As such, all artistic production alludes to subjective production interdependent on the context and the subject carrying it out, configuring it as an artistic object. In this sense, it includes at least a social-political (intersubjective) dimension, another cognitive-affective (intra-subjective) dimension, and a poetic-transcendental (artistic) dimension.

3. **Gender-art-health.** As far as the gender perspective is concerned, we could ask ourselves if it is possible to speak of a differential artistic production in relation to gender or if a correlational component derived from the different subjective meanings of the artistic experience in relation to this variable exists. One might also consider (mental) health in relation to art and gender, as both things are social constructions modulating the perception-interpretation-representation continuum and operate thereupon qualitatively, according to whether one is man or woman, artist or not. Lastly, one might argue as to a therapeutic method that works based on the interaction between different mental positions, the models and ideals socially maintained and constructed regarding femininity and masculinity, and the artistic products and processes that are produced according to them.

The construction of what we call identity includes an identification process wherein, at minimum, biological, cultural, and biographical elements and the social structure are involved. For a healthy development, babies must be within a setting they can handle, and to this end, they need someone else capable of sustaining, protecting, providing, and feeding their experience. This mediating function must exist, beyond whoever holds it, so they, in turn, may develop it.

When gender roles (masculine/feminine) are articulated around rigid social models that counter masculine omnipotence with feminine abnegation, parental figures assume differentiated forms that are expressed through relations and attitudes such as power/submission, activity/passivity, strength/suffering, and control/guilt. As a consequence, the caretaking functions are divided, and they become vertebrae in the masculine-defense-strength-external/feminine-sustain-sensitivity-internal duo.

The internalization of a complete caretaker figure is mandatory for a subject's development, regardless of whether they are biologically a man or woman. When this figure breaks or proves to be insufficient, it promotes a gender construction based solely on the biological factor, constituted as a stereotype, leading to overidentification/rejection of social bonds. However, and additionally, it becomes a vulnerability factor that may be at the base (at the origin) of, or modulate, different psychopathological alterations that are either conflictive or structurally deficient in nature.

On occasion, the intolerable nature of a thought, affection, or sensation is not considered in relation to another one that is better or more credible; rather, it is

the fact in and of itself of being unable to self-sustain when faced with it that is intolerable. When this *sufficiently good* maternal function fails, as Winnicott so magisterially presents, it may occur that it is impossible for an individual to be in the world without warning themselves, no longer of a lack but as a result of an empty space.

Spaces cannot be reduced to the concepts of I-think as conscience, the instruments with which nature draws on the landscape of subjectivity. As such, they must be experienced outside of time, outside of history, because they are outside of the interior of conscience.

(Pardo, 1991:41) [3]

### 36.2 Part 2: Clinical Examples

#### 36.2.1 Lola

Reality may be taken as a maze of relations (as well as an ensemble of correspondences) wherein the body and language form part of one same system that gives the subject meaning, as they are called upon to be activated in each new situation wherein the subject finds themselves. Both body and language share something we might call an updating vector that operates in two senses: in conservation and in transformation. There is something in the corporal element that remains and something that is moved by experience and transformed by it, and the same thing occurs with language (especially nonverbal). In this fashion, every experience is engraved in a subject's mental framework, mobilizing their structure, ascribing it to the body and language in order to bequeath it with subjectivity.

Language and body embrace the experience of living and give it meaning. Habit is the base upon that which is different is outlined, the condition for the development of that which is new, which puts the instant when it becomes real into play, and wherein it is possible to play or create, to imagine something different, and to prepare for change. "One must be capable of imagining something different than what there is in order to be capable of wanting; and one must want something different than what there is in order to be capable of imagining" (Castoriadis, 1992:131) [4]. In this sense, art facilitates a certain "resonance" between the body and language, thanks to which capacity for self-regulation is increased and the capacity to create changes along with it.

The factual condition of artistic products induces one to collate, evaluate, realize, detect problems, try solutions, make adjustments, etc. Experiencing an achievement, even when not absolute, provided by artistic work hearkens to the very capacity to modulate, facing every situation from the emotion, sensation, and thought it produces.

In *poiesis*, everything is radically different. The nature of what could be is attributed to that which is presented in the creation or production. It is always the result of doing, of *facere* (*fictio*). More than resembling existence, it is a revelation of its conditions of possibility.

(Trías, 2001:195) [5]

Lola is a 63-year-old woman who has suffered a brain stroke affecting the left side of her body. Her motor capacity appears to have been recuperated, but she says she has lost her freedom. Her husband, recently retired, has taken charge of the situation and controls all of her movements, preventing her from doing anything that would imply decision-making or change.

At the beginning of the session, she appears uneasy, constantly looking every which way, and when she is asked to close her eyes to remember, for example, a landscape, she is incapable of doing so. She sits on the edge of the chair, which is too high for her, because she says she needs to have her feet on the floor, and she keeps her arms on the armrests. Her body language is ambiguous; she appears to be anchored to the chair and about to take off running all at once.

She has always lived under a man's protection: first her father and then her husband. She has never needed anything that had to do with taking care of herself. Since she married, she has dedicated her life to her family. Her day-to-day always consisted of the house and children: she got up, prepared breakfasts, and took care of her family, and once they had all left, she got ready and went to the market. There, she met up with other women with whom she chatted and drank coffee. Then she went home and took care of domestic tasks, meals, and once again, taking care of her children and husband.

Now her husband does the grocery shopping for her. He says that she cannot take care of everything and that it is better for her to rest. Lola does not understand what is happening; she feels guilty and ungrateful for his care and explains a feeling of intense sadness and malaise that she feels as an aftereffect of the stroke.

After considering different materials, we worked with play dough, which interested her because she said it allows her to exercise her hands, especially the left one. From this point, we focused especially on the connection between the imagination and the manual realization of what was imagined, proposing experiences to her that allow her to effortlessly experience this connection. We worked with very basic shapes: a ball (that she called a bouncy ball), a ball with a hole (a washing-up bowl), and a solid cylinder (worm).

It is easy to observe her great difficulty in imagining, and especially in separating herself from the literality where she finds herself, and in thinking of some change; with each new suggestion, her breathing becomes ragged, and she begins looking at her fingers with greater unease (perhaps anxiety), so we suggest that she tells us something that she likes. After a moment of uncertainty, she tells us that she likes flowers. When we show our curiosity regarding which ones, she appears indecisive and finally says "roses." We ask her to think about a rose and then go one step further. "Once you have the image in your head, don't you think you could make a rose out of play dough?" we affirm. Her response is immediate and unequivocal; both her words and her body say no, she cannot, that is impossible.

Then we ask her if she can make a stem. She looks at us, surprised, and affirms, "Yes, of course!" and makes a thin cylinder from green play dough. Then we ask her what the rose is like and what it is made of. She says it has petals, and we ask her if she can make one. She is still surprised and makes one. We ask her how many it has, and she says she doesn't know. We ask her if it has two, and she says no, there are more, so she continues making them. When she has several, she makes something

that she says is the center of the flower. Then we suggest that she make the flower. She places the petals around the center, and from there, she adjusts sizes, the number, and position. Then she sticks the flower on the stem and adds leaves.

Her face has totally changed, and she looks at the flower she has made, half-surprised and half in admiration. We comment that it is perhaps not exactly as she had imagined, and we ask her what she thinks of it. She says that she likes it and then adds that life is that way: sometimes, one thinks about how things will be, and then they don't turn out that way, but, oh well.

Working with art allows one to bring what they are feeling to the body and then manage it through materials. Finishing implies a "retreat," but it is also conserving that which has been achieved. It is difficult for Lola to spurn her flower, but more than anything, she will not allow it to be spurned by others; she will protect it from critical voices that undervalue it or try to annul it. It is also a way for one to become aware of responsibility itself in regard to themselves and their life, making it possible to receive and welcome that which arises therein.

In this fashion, a receptive, and not reactive, position is facilitated; it allows one to work with processes and not with results, with personal rhythms, considering subjectivity as a founding element in creative value.

#### 36.2.2 Julia

...being or feeling like a man, woman, or however one wishes to live gender, is a substantially corporal experience, a lived experience made real, situated in determined historical, social and changing coordinates. In other words, a process produced through basically corporal actions: ways of feeling, walking, talking, moving, dressing, adorning, touching, feeling emotion...in continuous interaction with others, actions that are modified in time and in space.

(Esteban, 2008: 138) [6]

Gender differentiation is the fruit of a group of practices that are socially legitimized, infiltrated without familiar gender models, referring to a group of differentiated beliefs, values, and attitudes, inscribed within a system that includes roles and conducts of domination/submission. Within this system, that which is feminine is constructed, affectively and cognitively, as per a masculine exterior which holds strength and control, in opposition to that which is masculine, and must be repressed, including the capacity of self-determination, negotiation and leadership.

The emplacement of that which is feminine within the borders of private space implies, in turn, an emplacement within the public space, with everything this implies in terms of power, control, and regulation. Space is presented as a guarantee of gender identity, in the sense that certain psychological characters, such as maternal instinct, empathy, commitment to others, generosity, noncompetition, etc., cannot be developed within normative practices inherent to that other public/masculine nature.

Julián and Marisa's first child was a daughter. The father's wish to have a boy crashed against the reality of the birth, and perhaps to reinstate order, he called the newborn Juliana.

The expectations Julián had placed on that son-daughter, Marisa's affective ambivalence, the birth of a sickly sister that required all attention and care, and

finally, the arrival of the boy complicated Juliana's childhood. She spent her first 4 years trying to find her own way to be in the world.

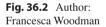
A few years ago, and as a continuation of the therapeutic process she had begun for learning purposes, Juliana began another one with artistic means as the preferred method.

She had never shown any psychiatric symptomology of note, but a constant element in her life was a certain feeling of malaise, which she never quite managed to figure out, and she related it to her difficulty in developing true bonds of trust. She was a successful woman, both socially and professionally; she had a partner with great qualities, and she had recently become a mother. She had decided to become a mother at the moment when she desired to do so, and she had prepared everything to enjoy what motherhood implied.

The biological situation of motherhood coincided with her decision to begin the process that led her to legally change her name. One of the issues worked on the most during her previous therapy had led her to the conclusion that being named Juliana had significantly conditioned her life, especially insofar as her appropriation of her feminine condition was concerned. Surely because of this reason, during her adolescence, she had decided to go by Julia. Currently, practically all of those around her, except for her original family, knew her by that name.

However, both things, maternity and changing her name, were in actuality more difficult than she had supposed, and this led to a notable increase in underlying malaise that began causing moments of great anxiety, a feeling of uselessness, lack of meaning, and even existential emptiness.

The image of a woman (Fig. 36.2) she found in a newspaper in one of the first sessions, and to which she returned on several occasions, proved to be a key element





in developing what might be called a "genderization" based on the body, appropriating from that feminine image what she could not integrate when she was a child, and it allowed her to sustain herself beyond her biology, biography, and the paternal desire for a son. To this end, it was necessary for the image to no longer be the center of her thought and to become the nucleus for a creative action.

The huge emotional destabilization that the image produced in her had led Julia to work with it several times, always from a perspective of rationally searching for answers, but verbal language did not achieve the goal of freeing her from the abyss she saw interposed between herself and the image. Finally, the discourse found new materials and the structure to put into play, and the image became the matrix for an identity fabric that was generated based on those three places, interlacing memories, desires, and present realities.

The discovery of repetition as the compositional base to generate new meanings was the first step. It took place coincidentally, based on carrying out artwork with canvas, which began as an exercise in color with small adjacent squares. They were added to session-by-session over the course of a month, making a multicolor space that, as it formally grew, contributed sensory content. She called it "blanket." The blanket as a protective, sheltering, and caring element, but also as a hiding, clandestine element, sheltered the intensity of some contents, which, in the form of sensations, affective remnants, or automatic defensive thoughts, brought the square along with it. In parallel fashion, Julia recuperated a hobby she had previously entertained, and in her free time, she began to crochet squares which, once joined together, made way for a real blanket. Making this blanket was extended over the course of the entire posterior process.

This pictorial artwork made clear the enormous transforming potential that the action in and of itself held in relation to the affective mobilization/performance. Upon finishing it, Julia was interested in some pieces of cardboard from leftover boxes in the studio and began to work with them, using them as the base but also as plastic material. In this fashion, the material had a twofold quality: as a base, it was containing and permanent, rigid enough to hold up the rest of the elements being placed on top of it, and as flexible and versatile material, it adapted and was able to function under various regimes. One could cut, fold, wrinkle, soften, wrap, pulverize, etc. Additionally, the glue, as a cohesive element, gave the ensemble strength, in such a way that the more elements were added, it became stronger and more consistent, and the artwork became more hardy and resistant.

The cardboard-base acted as the foundation for the composition, all while functioning as a producer of new materials and plastic qualities. The cutout image of the woman was pasted to the surface, and work was begun on the background as if it was a material field; the cardboard was scratched, scored, and separated into layers revealing different relief and texture ending. Julia saved the ripped leftovers, and when she had enough, she mixed them with glue and made a paste that, in turn, acted as a new material. With it, she covered part of the surface, and taking advantage of its plasticity, she shaped volumes, made incisions, defined rigidity, etc.

As the blanket had covered sensory-affective memories that could hardly be verbalized, this new work with cardboard took on a new unlimited capacity in the affective realm, also giving way to a labor in unloading. Aspects regarding vulnerability,

the need for protection and care, containing, receptiveness, and playing were connected to others such as rage, aggressiveness, and control. In this fashion, the background figure ensemble became a battlefield where the figure, who was never directly participated with, was modified through the constant, profound transformations taking place in the background.

The artwork took on a huge level of complexity, both from a formal and a thematic point of view. Its bidimensional condition appeared to be questioned by the diversity of superimposed cardboard planes and paste and the mono-color brought about by the fact that the image, made of photocopies in black and white, was squelched by the cardboard, whose textures and mixture with the glue created different nuances: shadows, shining, tones, etc. Each one of these qualities was experientially put into play, and only on occasion was some verbal correlate derived; the material condition of the text with which she was working implied the emergence of emotional movements congruent with the intervention, which interlaced with others of a more reflective, perhaps projective, origin. There was great emotional mobilization in the form of frustration, rage, fear, expectation, curiosity, disgust, shame, feeling of achievement, empathy, love, care, etc., which interacted with the evocations, projections, and reflections that the image as such provoked.

Once this artwork was finished, Julia began making a great number of photocopies of the image of the woman, which she used as vertebrae elements for new cardboard compositions. The elements that appeared gave her the opportunity to develop a set of artworks whose central axis was her own femininity. In this sense, within the framework of the vital tensions sustained by the creation process, it was also possible to integrate them: action/passivity, strength/fragility, freedom/subjugation, transgression/abidance, certainty/uncertainty, expansion/drawing inward, etc.

Pieces of mirror, ropes, spring, nails, fabrics, silk paper, wool, feathers, stones, and many other real elements were conjugated with visual elements, such as tunnels, nets, high heels, peepholes, doors, windows, rain, wings, etc., and were composed in different orders as a ship, a house, or a body.

Each creation process constitutes in and of itself a spontaneously generated experience that includes the human being in their totality and in action.

In this sense, it is linked to that which is corporal, and from this point, to the very body of the artwork itself, to its factuality, which appears not only as the support for language but as a part constituting language. The artwork-body operates as the signifier and also as the significance and signification agent, capable of expressing itself through a rhetoric based on relations with other scopes of knowledge and the flow of experience: memory, cognition, setting, emotion, etc. all come together therein to form an ensemble with meaning. The relation between these ensembles is finally corporal and is in the nature of the language, on its edges, and at its limits, and each one of us has developed different ways of founding and giving shape to these relations.

#### 36.2.3 Elena

Fear is a passive state. The goal I set for myself is to go from being a passive to an active element, to take control, to move from passivity to implication.

(Bourgeois, 2002:129) [7]

The condition of motherhood as a building block of feminine nature is upheld by an ensemble of beliefs, inherent to patriarchal organizations, which implies a system of power relations from whence, in many cases, it is difficult to extract oneself. The woman-mother identification is articulated by a series of "natural" capacities which often prove to be unavoidable for women, love, bonding, empathy, sacrifice, etc., and they imply commitment, not only to sons and daughters but also to that which is human in its broadest meaning: family, community, culture, health, education, etc.

This form of subjectivity implies a *woman being* dedicated to being a *being for others* which, when this is made impossible, may prove to be excessive for the psyche. The need to be accepted, wanted, and even indispensable for the other being goes hand-in-hand with the fear of being alone, of invisibility, and in the last instance, of the condition of not existing; not being wanted is also not being seen or recognized as singular, as valuable: being dispensable or substitutable. Even when motherhood as such does not come about, generalization of the role of the mother regarding other relationships is superimposed on a way of being in the world that takes values such as collaboration, solidarity, or surrender as nuclear units for construction as a valid subject. In this fashion, the question "Who am I?" is inseparably formulated with the "Who am I for the other one?", announcing the important component of affective dependency thereby implied.

The mandate to attend to the other being's necessities implies total deployment from the body, insofar as their own consistency is concerned, sexuality, pregnancy, birth, and breastfeeding, as well as the external space it articulates: the home. A body conceived for the other has suffering, sacrifice, and pain as founding elements of subjectivity; a body-home presents itself as the main legitimizing element of the being, in such a way that renouncing it also implies renouncing one's own space wherein they are deployed as a subject.

Elena is a 40-year-old woman. In her psychiatric file, three suicide attempts and an imprecise diagnosis stand out: post-traumatic stress disorder, eating disorder, melancholic depression, attachment disorder, general anxiety disorder, toxic addiction, and finally, borderline personality disorder.

She was born into a conservative, religious family, with a high-socioeconomic level; she was the first girl out of eight total children, including her twin brother, José.

She says that she was happy during her childhood and especially that she was never bored. Her brothers and sisters were always driving forces in her life, especially after the death of her mother due to childbirth complications when she was 7 years old. She says she is passionate about children that she understands them

well, unlike adults. She does not have children, but she has several godchildren that she adores. She considers that her own motherhood to be impossible and that her body and head would resist pregnancy, since both of them are only apt for death.

She explains that when her mother (a woman with strong religious convictions, who put the divine command to procreate before recommendations of those who warned her as to the danger of new pregnancies) died, and with a father that only spent time with his sons and daughters to judge their progress, she assumed the role of caretaker and rose up as an affective point of reference for the rest of the family.

Five years later, her father married again. The new wife could not have children and joined the family nucleus as an indisputable maternal figure, leaving the position Elena had filled up until then as worthless. At the time, she was 12 years old. In addition to the initial powerlessness, rage, and bitterness, she first felt guilt and then transgression as a singular way of being.

She began interpreting her mother's death as an abandonment, thinking that she knew the risks she was running with each new child and that even so, she continued getting pregnant until death. This brought with it unacceptable feelings and thoughts that first filled her with rage and then with guilt. Then she idealized her, taking her as a model of what she said she could never be: perfection, sweetness, balance, happiness, and safety. She compared her with her father's new wife and felt that her mere presence was already a betrayal of her memory. Finally, she wished to follow in her footsteps and become, like her, an exceptional woman, dedicated to others, in social action and in religion.

At 17, she was molested by an acquaintance of the family. She says that her father did not want to believe her, alleging her lack of attractiveness, so she never received support. She remembers that moment as a brutal blow to her condition as a woman that, in addition to being thrown from her role as caretaker/mother for her brothers and sisters, she received a definitive nonrecognition of her feminine values: motherhood and sexuality. Along with the impunity to which she felt both men had physically and psychologically subjected her, this shattered her already precarious mental structure. She began to radicalize control of her body, to distance herself from the family home, and to increase her activity as a student and religious leader. She drastically reduced food intake, and she dedicated herself to camp activities and social projects and began university studies. In parallel fashion, she began feeling an ever-increasing feeling of emptiness and guilt that she tried to neutralize with constant self-punishments that included self-bodily harm. At 20 years of age, given her clear physical and emotional deterioration, and after a suicide attempt, she was admitted to a psychiatric institution.

She attributes the two fundamental, vital consequences that those years brought to the collapse of the bonding model offered by the mother and the impossibility of any bond with the father: rejection of religion and homosexuality. Upon leaving the institution, she begins to dress as a man; she joins a high-competition sports team and is filled with intense anti-system political passion.

Her personal achievements at that time did not manage to make her feel sufficiently valued. Additionally, the rhythm she had with her father progressively moved her away from the recognition she more and more intensely desired. She says that all of that wasted energy ended up throwing her toward a position of insufferable impotence and guilt, which was paradoxically experienced as dependency. The impossibility of obtaining a certain control and authority over herself, along with feeling empty, as if there was an abyss under her feet, leads her to a second suicide attempt that left serious physical consequences.

Thanks to a family inheritance, she purchases a house and decides to live alone. She has some income and now a disability pension that permits her to manage expenses without many problems. Little by little, she recuperates some of her previous activities all while becoming aware of her many limitations. She also picks up some of her more radical positions regarding religion, sexuality, and politics again. She begins to look for more and more extreme pleasurable experiences that lead her to a period of great promiscuity, toxic consumption, and risky behaviors which, in turn, bring large doses of guilt and an increase in her feeling of emptiness. After another suicide attempt, she is once again admitted. At this point, and as a complementary method to her treatment (pharmacological and psychotherapeutic), she begins a complementary therapeutic approach focused on languages and artistic processes.

Elena had been a brilliant philosophy student; her capacity for reflection and criticism was notable, and she tirelessly searched for explanations and reasoning. On occasions, however, logical thought could not explain or give meaning to a large part of what was happening to her. When this happened, the only escape route she could find was her body: controlling it, exhibiting it, inflicting self-harm, disguising herself, inebriating herself, purging herself, and binging and practicing extreme sex. Plastic work allowed her, more than anything else, to experience and integrate beauty-ugliness, creation-destruction, malaise-pleasure, and control-chance pairs. From that point, it was possible for her to undertake a self-construction process that allowed her to manage the ambivalence of her desires/impulses, especially in relation to her father and everything he meant.

Sensory, cenesthetic, and poetic work opened up a new pathway for her. We suggested beginning with some techniques used by surrealists. She liked the history of art and was aware of many of its movements, so we thought this could act as a bridge between that which is intellectual, to which she was accustomed, and the proposal we were making. Additionally, surrealism has a large dose of transgression, rebellion, and insubordination. Techniques such as dripping, collage, frottage, and stamping allowed us to introduce playing and chance as discursive elements that initially prevented a great part of the possibility of control but opened a wide range of valid solutions that could be managed later on; more than anything else, it allowed her to give meaning to the process and the different moments undergone by the artwork as it evolved.

Here, the body was fundamental. The techniques required concentration and patience if one desired to obtain a result even slightly similar to that which was being sought: regulating the amount of water on the painting for dripping, tones and fillers for stamping, the pressure used to transpose color from one surface to another, and the selection of images and materials for collages. All of this forced the body to be currently present; it pushed it to take the reins and forced the mind to be



**Fig. 36.3** Body

available to the body: planning the steps, careful execution, paying attention, evaluating, and correcting. It required appropriate and flexible handling of materials more than exhaustive control, which, in turn, was not possible. Once this pathway was available to her, she began working with freedom, enjoying the ludic moment created by the activity and creating different mental contents that came into play (Fig. 36.3).

The experience of her split femininity, which derived in a construction of herself that she was unable to sustain as a man, either, along with her current state as "a broken body," began to come together in a reparative artistic action, wherein everything that was significant to her was incorporated: food, crafting, personal hygiene, pharmaceuticals, a brush, empty refreshment cans, candles, rice cakes, wrappers and fruit peelings, scrap wood, medication bubble-packs, etc. Everything was useful as a way to connect to her body, to reality, and to her affection that the therapeutic device offered to her. Constructions were organized from the interior, around a base structure that became more and more solid, wherein elements from different places and of different colors, materials, lightness, etc. were involved (Fig. 36.4).

She began alternating tridimensional compositions, which offered her a more physical space, with other bidimensional ones, which allowed her wordplay later on, and bit by bit, verbal language was able to regain meaning. She was also able to selectively use techniques, according to the mental state she was in, both to reinforce it and to change it: she sought relaxation, unloading, playing, bonding, explaining herself, avoiding, etc. Little by little, she developed a set of artworks arranged as if they were a text to be decoded; some took on meaning according to others, as she organized them chronologically, thematically, or technically.

Her last composition was a collage. She made it on the floor and as a summary of all of the work carried out. From many magazines, she extracted words and images, one-by-one, which somehow impacted her. Then she put them onto three sheets of paper. She says that each one of them represents a different type of person: the first two are people she hates and that she once was, and the third is what she is.

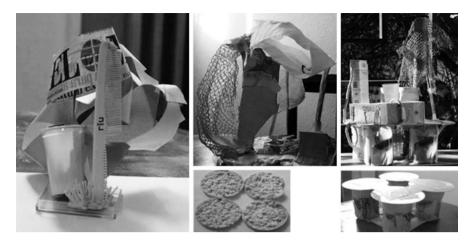


Fig. 36.4 Constructions



Fig. 36.5 Collage

She says that the images help her to clarify words. Once the three compositions are made, she warns that she still has words left to use. She rejects two of them, "virtues" (theological virtues, she says) and "stars," and throws them into the rubbish bin. Then she makes a fourth pile that refers to the favorable aspects she recognizes in herself.

She takes a large piece of paper and puts the three sheets on it, directly gluing the last ones to it. She warns that she still has some left. When she picks them up again, she looks at them and looks at the therapist, half-surprised, half-happy. She laughs. "I'm also all the ones that are left," she says. Then she folds a paper in half and glues them inside. On the outside, she writes: What I chose, but didn't know.

What she wrote afterward, she said, was a declaration of intent (Fig. 36.5).

Triumph, the invincible ones, those who believe they have a right to an inviolable territory, those who assault that which is private, that which is personal and belongs to another... Who? ALL of them are a façade. They hide behind imaginary glasses. They believe that they can bully. I HATE them.

Those who are unlikely, those who believe themselves to be special (not because they are unique, but because they believe themselves to be above the rest), those who, when they need personal space, invade the space of another, those who believe they are made of iron, the champions, distant and therefore exclusive, may they select an AUDIENCE, may they feed off of the latest, the most organic, but may they leave me in peace, may they stray from my path.

Fatalists, the marginalized, those who have at times been wild, those of us who feel fear, those who shun (vomit) eagerness, those of us who are a burden to the rest, but more than anything, to oneself, those of us who see life as difficult, those of us who believe we have an equivocal life, those who they almost always say must be forgiven, those we harm... they, them, me, we have no place in this life other than the path of death. We do not know how to see or hear; we turn our back on life.

I like personal relationships, those that collaborate so the heart speaks and talks, those who have a family, but I do not see them at first sight.

I would like to be able to speak to life face-to-face, to live in that which is real, even for just a few instants; not everything need be forever.

The construction of a gender identity, just like the rest of one's aspects, takes place within a dialectic relationship with one's setting: relational, social, experiential, linguistic, geographical, etc. In opposition to all domination practices, by principle, there is a being that resists, that struggles to maintain its singularity. However, the possibility that said singularity emerges as something primary, and not reactive, does not depend on the quantity or quality of reasoning we may carry out in this respect but on the fact that a potentially appropriate medium for the development of personal resources allowing to do so exists or has existed.

Offering spaces for free creation, putting nonverbal areas of experience into play within a sufficiently sustaining therapeutic device, is fundamental to develop resources and strategies that facilitate the handling of uncertainty, fear, frustration, and rage, so that all of this may be integrated into one same experience of achievement on all levels: cognitive, affective, sensory, motor, and relational. Only in this fashion will transformation be viable: creating something new for the person that shows that they are a capable, free, and autonomous individual.

#### 36.2.4 Marta

When the pressure is too great, or the conflict weighs excessively, there are processes of expulsion or exclusion. They may occur either in the soma or in reality.

(Green, A. 1999) [8]

Marta is 25 years old. For the past 3 years, she has been going to a psychiatric day hospital. Her record shows a traumatic childhood, suffering from an abusive father and a mother with whom she has always had an ambivalent relationship. In clinical terms, the most significant aspect is dissociative and psychotic symptoms, along with substantial self-harming behavior, including autolysis attempts.

She was an undesired child, raised by a father who assaulted her all while granting affection to his male child. Her mother was unpredictable, at times overprotective and other times distant and destructive. Although the father abandoned them at an early stage, the family structure remained precarious and shifting, affording little protection. Within this context, Marta's eroded mental fabric was unable to build its

structure and proved ineffective when integrating different dimensions of the conflictive experience, which remained confined to her body. As a result, her mental space found no other territory to take shape than the said body and established its limits within the same border, between the skin and the act.

For Marta, feeling her body is synonymous with feeling alive, finding a certain proof of herself, and perhaps proof in the world of others. Time and time again, she searches her body for channels to integrate that which has split away, the impossible, the ineffable. She aggresses and exposes herself to risk in increasingly extreme ways wherein, perhaps in her attempt to make it disappear, lies the most radical impulse to find herself. Self-injury makes her feel, allowing her to connect to a body she feels, that proves the fact that she exists. This dramatic pulse with the body would appear to project her toward an idealized experience of control that annihilates all limits, to finally disintegrate herself. Thus, when failure at this point is also complete, the demand is imperative, and she addresses the other: "Tie me up!"

The impression is of a body presented as an offering or sacrifice, a woman who hopes to one day be loved. To achieve this, she seeks to refute the paradox of her existence, to leave behind the desire to cease to be such a replacement for never having been, a body that must be capable of embodying itself through a more permeable or flexible substance than disavowment, finding sufficient certainty of the self and its relation to the world, from whence it can represent itself.

From the start, the plastic experience offered in the workshop fits with the way she is. There are scarce requirements and she can control the process without effort. This means she can do work where sensory and affective aspects can easily be tuned, channeled toward waters that provoke well-being, with scant or no cognitive demand.

Initially, this appears to be a simple task of word-image connection, where the compositional elements are treated as if they were verbal elements, an image with no plastic pretensions that only seeks to announce an object: flowers, mountains, prints, and clouds. When viewed later, her initial drawings are the beginning of what will subsequently be protoforms and protostructures which, bit by bit, will veer toward a stable solution, indefatigably repeating with hardly any variation until the dissolution occurs, finally permitting transition toward change (Fig. 36.6).

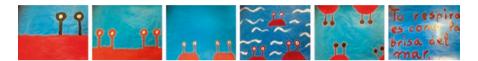
Guided by the comfortable emotional tone she finds in the task of ordering, structuring, and flattening the color of different surfaces, her output is stabilized in a



Fig. 36.6 Phase 1



**Fig. 36.7** Phase 2



**Fig. 36.8** Phase 3

form clearly recognizable as hers. At this stage, a compositional base appears that could be called the "matrix," falling under a landscape structure divided into two parts, one of which is always terrestrial and the other varying, on some occasions between air and others between water, and finally taking shape as ambivalent. In her initial productions, frontal and aerial perspectives alternate, and both compositional parts are clearly present. In the latter, perspective is lost, thanks to the very close-up representation of the ensemble depicted but also due to an ellipsis representation of the terrestrial element, whose limits and extension are left to the viewer's imagination (Fig. 36.7).

As far as the plastic configuration is concerned, bit by bit, it takes shape as a method of action that associates the color with the very action of painting, producing a gesture that is calming, thanks to its repetitive, homogeneous nature, unequivocally designed to completely cover the paper's surface. She tests different tones, detecting the emotional subtleties they all awaken in her. Based upon this, she finds a way to conceptualize them, depicting her different mental states with pure color. Red and black connect her to a profound malaise; blue with space, breathing, and calm: and violet with relaxation.

Once structure and color have become consistent as a representational space, the true creative work begins. The terrestrial element grows more organic and draws back to the lower edge of the paper, not before splitting in two like a cell, giving way to the emergence of a first pair of creatures she will call crabs, the origin of an entire universe of crabs later on (Fig. 36.8).

For several weeks, she began by painting an opaque primary blue that she spread, carefully achieving a completely flat and homogeneous surface. However, once the crabs emerged, they begin commanding the creative action.

Marta's crabs are shifting, appearing in different corners, in pairs, in trios, smaller or larger, in different colors. Each one of these variables is intentional.

Week after week, the population grows. They appear as docile, attentive to the moment when she invites them to peer out over the paper, to enjoy the blue, velvety space she creates for them with care and affection, a set of shapes that meander through imagination, perhaps the beach they live on, until they explicitly appear. Marta explains that she never knows how many crabs will come this time. Sometimes, we only see their antennae or eyes. Others, we see smaller or larger parts of their bodies. These creatures gaze; they gaze at us, semi-hidden under the paper's surface or on its edges, immersed in the depths of an infinite beach that could perhaps be life or the body, a body-beach that transforms, is lost, drowns, and is filled with remains of its shipwrecked soul, or its destruction, making them exist as elements that keep watch over the gaze of their creator, calling it into existence as a possible corporeality (Fig. 36.9).

Halfway through the second year, Marta suffers a relapse and must be hospitalized. With her productions immediately before this episode, there are no crabs; there is merely a forced attempt to connect with color and the act of painting, along with the word. The last attempt, showing intense emotional mobilization of suffering, leads her to drench the paper in black and write "hate." Upon her return, she comes back to this image, making clearings from whence the crabs once again emerge. However, they have matured. There seems to be more awareness in creating them. She uses black as well as purple, writing "relax" over the top. She begins blending techniques (wax on tempera) and the colors grow cloudy, softer. With time, a new habitat appears. She calls it "Sirio," characterized by having three moons and two round mountains she says resemble buttocks or breasts. Crabs once again emerge from them, and blue, the ocean's breath, settles in.

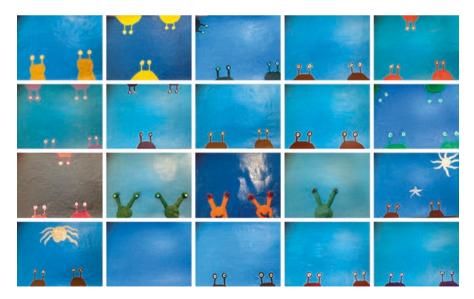


Fig. 36.9 Phase 4

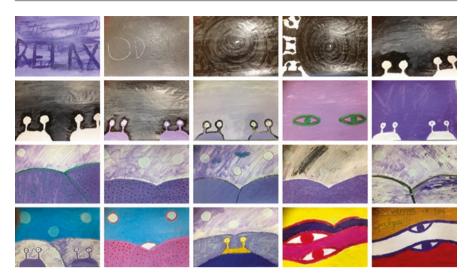


Fig. 36.10 Phase 5

Finally, the process seems to have exhausted itself. Sirio disappears when a new task appears in Marta's life that gives meaning to her real existence. Her mountains mix with the crabs' gaze, and the colors transform the ensemble into an entirely new composition, with the leitmotiv "Save the Greyhounds (Fig. 36.10)."

The third year, she is asked to participate in a pilot intervention project at a museum. She accepts. The process lasts 6 months and consists of work based on visiting a set of selected works. The format requires spending three sessions on each one of them. It includes a space for contextualization and another for contemplating the work in situ.

When Marta begins, she has just left a recent hospitalization, and her condition is so unstable that she must be accompanied. In the first work, a painting by Maruja Mallo, her work is highly intellectualized and focused on the artist and her feminist demands. This helps her to give meaning to her participation in the program and summon the strength and desire to continue. The second work is by Miró. Although she shows interest in his life and his creation, especially when in relation to nature, this work does not draw her like the previous piece. On the other hand, the warlike context and profusion of details in the picture confuse her, leading to short absences from whence she can return based on specific color and texture aspects. This is when she connects the snail and crab and decides to make a work that could be considered "transitory," where everything she developed at the hospital can act as a foundation to incorporate the museum's attributes (dignity, seriousness, effort, worth, etc.) and to undertake a profound, committed process of self-transformation. She works on the crab-snail for three sessions, creating a sort of hybrid with elements that denote a great increase in flexibility, humor, empathy, and metaphor. This experience allows her to begin a new process of plastic development, seen in parallel with the paintings she makes at the hospital (where she also goes), and that shows a "dissolution" of the crabs which is now irreversible (Fig. 36.11).



Fig. 36.11 Work in the museum

The third work at the museum is "Fallen Angel," by Manolo Millares. This marks a turning point in the process.

Marta immediately connects with the artist Millares, just as she did with Maruja Mallo. She says he appears to be a friendly, "Bohemian" guy. The work's content profoundly impacts her, and she emotionally dives into an explanation as to what he depicts (anguish, death, art as a barricade, etc.), the materials he uses (pieces of wood, rags, rubbish, bags, rope, etc.), and his techniques (punching holes, twisting, scratching, covering, etc.). There is a huge underlying burden of suffering and pain in the work, in the twisted figure, pierced by the structure upholding it. Regarding the painting, she appears overwhelmed, startled. The size, the colors, and especially the materials, "I didn't know that painting could be this, too," she says. She makes an attempt to understand the title "Fallen Angel," as if those words could communicate something to her.

She creates in a very free fashion, seeking play, scratching, wrinkling, breaking, and building: first, painting delicately and then splashing and sprinkling, experimenting with control randomness and exploring the material and her own limits through specific actions with it. The activity proves non-anxiogenic, containing for her: she breaks, spatters, and scrunches as a response to emotional intensification to which she responds, not by unloading but by creating. She does not need to refuse or defend herself to address what the work mobilizes. To the contrary, she takes advantage of each new sensation, each new emotion, as a driver for a new denouement.

Marta continues attending the sessions, making different creations, where, each time, she finds an increasing presence of who she is and her interests but also what she calls "her ghosts." Based on a work by R. López Cuenca, she creates a door with the motto, "Against Abuse. O Tolerance," a door she says should be put everywhere and that once again is reminiscent of the crabs and their eye-antennae (Fig. 36.12).

Bit by bit, she must settle things in her life, but for her, art has taken on an important worth. Born of her need to dialogue with the world are the door and her latest work, "Authors, I Write to You," an open letter to artists with whom she feels she can share many things. We like to think that each one of them was the seed that led to the birth of her new development: as an activist and as a theater artist.

When we interviewed Marta, she talked to us about Millares:

**Fig. 36.12** Work in the museum





Millares! He made it possible for me not only to paint, but also to put what I felt like, to break, to take...and I couldn't imagine all these possibilities when working on a canvas before. Now I'm calmer, I express my emotions with chaos, it relaxes me. Before, I went to boxing and I was nervous. When I discovered this, I found another way to vent. Doctors and my family have noticed it...I don't need to punch so much any more.

# **Bibliogrphy**

- Burin M, Meler I. Varones. Género y subjetividad masculina (Men. Gender and masculine subjectivity). Buenos Aires: Paidós; 2000.
- Merleau-Ponty M. Fenomenología de la percepción (Phenomonelogy of perception). Barcelona: Editorial Altaya; 1999.
- 3. Pardo JL. Sobre los espacios pintar, escribir, pensar. Barcelona: Ediciones del Serbal; 1991.
- Castoriadis C. El psicoanálisis, proyecto y elucidación (Psychoanalysis, Project and elucidation). Buenos Aires: Editorial Nueva Visión; 1992.
- 5. Trias E. Ciudad sobre ciudad. Arte, religión y ética en el cambio de milenio (City over city. Art, religión and ethics at the change of the millennium). Barcelona: Ediciones Destino; 2001.
- Esteban Galarza ML. Etnografía, itinerarios corporales y cambio social: apuntes teóricos y
  metodológicos (Ethnography, corporal itineraries and social change; theoretical and methodological notes). In: Elixabete Imaz Martínez M, coordinator. "La materialidad de la identidad
  (The materiality of identity). 2008. p. 135–58.
- 7. Bourgeois L. Destrucción del padre/reconstrucción del padre. Madrid: Editorial Síntesis; 2002.
- 8. Green A. Free English translation from "El analista, la simbolización y la ausencia en el encuadre analítico veinticinco años después. Rev Psicoanál. 1999;LVI(2):367.

# **Part VII**

# **Gender Bias in Research. How Does It affect to Mental Health?**



# Gender Bias in Research: How Does It Affect Mental Health?

37

Maria Recio-Barbero and Isidro Pérez-Fernandez

#### Abstract

Historical reliance of women in medicine and biomedical research has been marked by the negation of inherent differences presented by women in the pathoplasty and the development of medical diseases. The historical exclusion of women from clinical trials has generated a medical research gap, resulting in the generation of incomplete data related to women's health and well-being. The traditional medical male-dominated model, in which women's health was viewed through men's body (known in biomedical research under the term "androcentrism"), has generated a state of ignorance about women's health-related problems. From sociology and anthropology, much work has been done to understand how social factors have an important role in the development and maintenance of diseases. Women do face particular environmental stressors than men do, and they have to face with social norms and attend to social stereotypes in order to fit into an increasingly demanding society. Among them, a low level of education, poverty, social exclusion, and other related issues is a social reality that affects women's health. In the next chapter, we provide a review of the most relevant historical facts related to the inclusion of women in the biomedical sciences.

#### 37.1 Historical Movement of Women in Scientific Research

Historical events related to the development of human rights and welfare of human research should be addressed concerning one of the most shocking events revealed

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© Springer Nature Switzerland AG 2019 M. Sáenz-Herrero (ed.), *Psychopathology in Women*, by the second Nuremberg trial. In order to understand the development of ethical standards in scientific research, it is necessary to consider some historical facts that changed the sociopolitical paradigm and the history of humanity.

The World War II dominated by the Nazi criminals in Europe was a turning point for ethical rules in human research. The crimes and atrocities committed by some Nazi scientists, such as those committed by Dr. Jose Mengele in Auschwitz complex or many others in Birkenau, were a before and after in society and scientific research. Known as one of the greatest genocides in modern history, the Holocaust, in which thousands of people suffered the barbarities of the Nazi regime, was categorized in Nuremberg trials as "crimes against humanity" [1].

A set of research ethics principles for human rights in scientific experimentation were created as a result of Nuremberg trials in the World War II. The Nuremberg Code of Ethics is a ten-point policy which set the ethical constraints incumbent on anyone involved in designing and conducting clinical research studies.

Indeed, the Nuremberg Code was essential as it declared the fundamental and sacred dignity of rights and dignity of the human who participates in research. It also established for all the time the right of persons to decide and choose whether to participate or not in research [1, 2]. Finally, the principles of Nuremberg were quickly embedded in the Declaration of Human Rights issued in the early days of the United Nations. Thus, in a matter of a few years, the principles of respect for persons and beneficence were not only articulated and applied to biomedical and behavioral research, but they were accepted across a broad spectrum of nations and peoples worldwide [2].

Despite that, the inclusion of women in clinical trials received little or no attention. Moreover, the inclusion of women in drug trials was considered "dangerous and practically worthless for the risks attained" [2, 3]. This idea was reinforced by a new politic regulation settled in 1975 by the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research. Following this idea of women's vulnerability favored the idea or "male model" as a gold standard in medical research, and this situation does not improve until a decade after [3]. Other groups affected for those regulation policies were the exclusion of people with special necessities, physical, social or mental problems.

In the middle of the 1960s–1970s, women's health activists achieved such profound changes in the medical paradigm that marked a turning point in the history of women's health and research. Some of the most relevant events during this decade include [2, 3]:

- In USA the abortion debate supposes an ideological and public opinion split for and against the theme. They won the legal abortion right, but the situation was a turning point for the inclusion of women in childbearing in drug clinical trials. Moreover, the possibility of teratogenic effects of those drugs in the fetus was a decisive factor to exclude a vast majority of women of clinical trials.
- The establishment of women's health clinics.
- The Tuskegee Study of Untreated Syphilis. The unethical study sponsored by the US Public Health System from 1932 to 1972 in Afro-American patients with syphilis.
- The measures were taken by Richard Nixon, President of the USA, known as "the war against cancer disease."

Those events change the state of paradigm in the inclusion of general population in clinical trials. This situation was reinforced considering how it settled the American healthcare system because these trials allow the access to sanitary treatments that were unaffordable in other circumstances.

Despite the progressive reforms and proposals made for the regulation of the fundamental measures of the protection of human rights in biomedical research, the inclusion of women in clinical trials did not improve. In fact, during the last 40 years, it has been proven a large number of legal regulations. One of the most devastating politics in biomedical research was the exclusion of women of childbearing potential in 1975 [3, 4].

In 1962, it came to public light the series of cases of the "thalidomide tragedy." This drug was mainly prescribed in the 1950s–1960s as a treatment to nausea occurring during pregnancy. The consequences are as follows: More than 20,000 children around the world were born with deformities, such as phocomelia, as a direct consequence of thalidomide use. In fact, and despite the medical concerning, in Spain, this drug was still available throughout the 1970s and including the beginning of 1980s [5, 6].

As a direct consequence of these dramatic events, in 1977 the FDA prohibited the inclusion of women of childbearing potential in phase I of clinical trials. These new policies become the gold standard in scientific research in the following next decades: Women were perceived and assumed as "delicate, fragile, and vulnerable" [2–4].

Little thought was given to the fact that greater potential harm and greater potential responsibility resulted from the investigation by pregnant women and women of childbearing potential of prescribed drugs that had never been tested in these women in controlled studies. Exclusion of such women became so routine in drug research that the assumption that they could be excluded was seldom challenged.

During the decade of the 1980s, attitudes changed dramatically. In USA the cost of medical care skyrocketed, making partially or fully subsided participation in research more attractive than seeking costly routine healthcare, and, thus, the fear of participation receded. Indeed, Women's rights became a national issue [2]. In 1985, it was released a report warning the historical lack of evidence related to women's health. In fact, this report came to light at the hands of Ruth Kirschstein, the first and only woman to work for the US National Institute of Health at that moment. This event highlighted the lack of evidence and knowledge about women's health, the quality of existing information, and the treatments they receive [3].

Given this dramatic situation, the US National Institutes of Health (NIH) has announced a new policy that "urged" researchers who received federal research grants and funding to include women in their clinical studies, but the policy did not change the problematic situation at all [3, 4].

This situation was a normal thing in clinical trials; as an example, in one of the national largest clinical study conducted in the USA, the Baltimore Longitudinal Study of Aging, or the 1982 Multiple Risk Factor Intervention Trial, curiously, no women were included [2–4]. Sadly, however, events similar to these have occurred (and consistently happen) in the history of biomedical research over the years.

# 37.2 A Public Concern: Pregnant women

Why should there be one law for men, and another for women?

——Oscar Wilde, The Importance of Being Earnest

Along with concerns for women's rights came the awareness that many drugs had never been tested in women of childbearing potential [2–4]. While the NIH is the largest public funder of biomedical research, most studies of drug treatments are funded by pharmaceutical companies that develop them and are reviewed by the FDA as part of the drug approval process. Since 1977, and as mentioned previously, the agency had had in place a policy forbidding women of "childbearing potential" from participating in early-phase drug trials for its teratogenous potential effects in the fetus [3, 4].

The direct consequences of some treatments have been exposed in the literature. One of the most famous was registered in 1977 in reaction to the congenital disabilities resulting from thalidomide (treatment for nausea during pregnancy) [5, 6] and diethylstilbestrol (an estrogen given to pregnant women in the incorrect belief it would reduce the risk of pregnancy complications and losses) [7], drugs administered during pregnancy as a routine treatment. This situation generated a public alarm about the unknown potential adverse effects of some treatments prescribed to pregnant women.

Nevertheless, things did not improve over the following years. Pregnant women and even those women of childbearing potential were automatically restricted or excluded to enter in drug clinical trials, especially in early stages of research. This means that those women of childbearing potential—most women aged between 18 and 50 years—were directly excluded. The direct consequences are alarming, exposing women to use medical drugs that have not been tested in them, ignoring possible secondary effects [3, 4].

Moreover, there was a general assumption that there were not genetically or hormonal differences between men and women, assuming the same side effects than those tested in men. Also, one of the most relevant factors considered to not including women in clinical trials was the assumption that women would have the same response as men (including the same potential secondary effects) to these drugs [3]. This situation is known as "androcentrism" where the male health model is in the center of medical knowledge, marginalizing those aspects related to women [8].

As we will see later, the presence of women in clinical trials was considered as a confounding factor comparing with men because of their fluctuating estrogen levels. Consequently, women were excluded from clinical trials, firstly, for being considered more expensive and difficult to test drugs and, secondly, for being considered as a "potential vulnerable population."

In the decade of 1980, some events bring to light the lack of knowledge of women's health. A report published in 1985 from the US Public Health Service Task Force related to women's health concludes that "research should emphasize disease unique to women or more prevalent in women." This situation stressed the absence of knowledge about women's body and health [2, 3].

This situation highlights the existence of a systemic problem, a problem of a lack of knowledge about women's health. The traditional male-dominated healthcare system has prone to neglect women's bodies and health-related problems that commonly afflict them [3, 4, 8].

Some reports published between the 1980s and 1990s indicated that women were underrepresented in federally funded studies in almost a great representation of some diseases that affect both sexes, such as in the case of heart disease and acquired immune deficiency syndrome (AIDS), equally [4].

Because of this dramatic situation, in 1988, FDA considers that companies must analyze (or at least consider) their data by gender when women were included, but despite those considerations, nearly half the studies reviewed failed to do so [3]. Most of the studies didn't consider at least a sex-based analysis nor a gender-based analysis in their methodology. It was by the mid in the 1990s when the FDA revised these guidelines to include this population of women in the earlier phases of clinical trials.

Furthermore, some studies have pointed out that even though millions of American women were taking contraceptives (known as the pill), a mere 12 percent of the recently approved drugs had been studied for potentially dangerous interactions with oral contraceptives [9]. Each year millions of pregnant women have to deal with other medical issues, some of which are chronic diseases, among which diabetes and influenza, or even more severe diseases such as cancer.

The prevalence of prescription drugs used during pregnancy is wide across counties. A recent article published in June 2018 [10] brings to light the real discrepancies about the information given in the commercialization of new treatment labels among different countries, such as Japan, the UK, and the USA.

In a review published in 2011 in which they evaluated the use of drugs during pregnancy globally, they found that about 27% to 93% of those pregnant women took at least one drug during pregnancy [11]. Moreover, recently published articles reviewing the evidence about using different prescribed drugs during pregnancy have shown that there is little evidence about the secondary effects that can occur (including those effects directly affecting the fetus) [12–14].

A recent meta-analysis published in 2016 reviewing pharmacokinetic changes during pregnancy pointed out that there are consistent findings of pharmacokinetic changes during pregnancy [15]. This situation has direct implications in clinical response and outcomes. Despite that and to this day, those effects are mostly unknown.

There is a lack of knowledge in the literature about the side effects that specific drug treatment may cause during pregnancy in women and their offspring. Problems concerning chronic medical diseases during pregnancy, such as diabetes or autoimmune diseases, are a big concerning problem. Most parts of treatments used to treat illness during pregnancy are used without enough data, in order to guide decisions, prescribe treatment, or guide dosing. In fact, after carrying out an exhaustive analysis of the different clinical trial registries worldwide, they found that only a small percentage of them (0%–7.9%) were carried out on pregnant women [16]. In addition, most of the trials conducted on pregnant women focused on issues related to procedures or alterations related to childbirth, without considering possible pharmacokinetic analyses and their effects on women's health [16].

The possibility of teratogenic effects in the fetus grounds a deep reluctance in the research community to include pregnant women in medical research. Unfortunately,

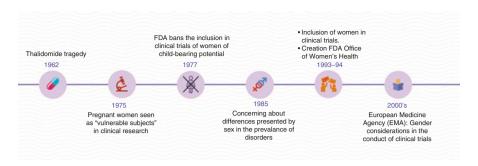


Fig. 37.1 Historical evolution of women's involvement in clinical research

and to our opinion, this position has done more harm than good for women and future generations [17]. Excluding pregnant women, and, furthermore, women who "are fertile and could get pregnant," is ignoring women's health and relegating us to a submissive state of men's body and health. Biomedical research must be at service of advancing knowledge, in order to improve outcomes, treatments, and people quality of life (Fig. 37.1).

#### 37.3 Sex and Gender in Scientific Research

In the nineteenth century, the central moral challenge was slavery. In the twentieth century, it was the battle against totalitarianism. We believe that in this century the paramount moral challenge will be the struggle for gender equality around the world.

——Nicholas D. Kristof, Half the Sky: Turning Oppression Into Opportunity for Women Worldwide.

During the last two decades, different organizations and public institutions have highlighted the need to consider and integrate sex and gender in all phases of scientific knowledge [3, 4]. As described above, there is emerging evidence that both sex and gender have a potential effect on how women and men present a particular disease or how it affects the metabolism and immune system, among others.

In the context of taking care of individual differences presented by men and women, there is an increasing emphasis in clinical research in doing more sensitive and precise scientific research attending to sex and gender issues [18]. First of all, and to begin with, we should define the actual differences between "sex" and "gender." Typically, in scientific research, we can see on many papers that there is a pandemonium of terms referring to this issue.

Mostly in preclinical research, and also in biomedical research in general, we refer to sex as a biological construct, whereby an individual is defined as being male or female according to biological particularities [18]. Related to this term, genetic, anatomy, and physiology have an essential role whereby an individual is defined as being male or female. This is understood as it is in computer sciences as a binary code, defined as 0 and 1.

The term gender refers to a complex construct of social and cultural interactions in a determined context or environment. Gender is related to the way we interact with others and how we are placed in our reality, how we perceived ourselves, and how we perceive others, influenced by a specific socioeconomic context [18, 19]. Gender is a concept referring to social differences presented by men and women, assuming that these differences are not inborn but instead formed by society and culture [19]. In other words, sex refers to "biological defined sex" and gender to a more complex interaction of sociocultural influences and norms.

Much work has been done related to promoting sex- and gender-based analysis in medical research, considering these influences in how research should be done. Methodological aspects are relevant in how research is made and carried out. One of the most significant problems in biomedical research is related to the irreproducible results of promising preclinical research. In this sense, experimental hypotheses of all preclinical research may address the direct comparison by sex to detect possible differences between them [20].

In the last years, some public organizations and institutions are claiming the necessity to consider a sex- and gender-based analysis paradigm in research. This initiative is known under the acronyms SGBA, and it considers a holistic spectrum in examining sex-based (biological factors) and gender-based (sociocultural factors) differences between men, women, and gender diverse people [18].

More specifically, studies being carried out in psychiatry have not taken into consideration how gender can influence mental health. Most of scientific research in this area has been found to be sex and gender biased [21]. Among other initiatives, some of the most well-known health research institutes worldwide have focused on identifying and making transparent how research is done. In fact, differences presented in epidemiology and clinical manifestations of mental disorders between men and women have been well described [18].

The Canadian Institutes of Health Research (CIHR) has required researchers since 2010 to indicate whether their research protocol includes differences presented by sex and gender. Following this, the US National Institutes of Health (NIH) asks applicants who receive grants and public assistance to explain how they plan to consider sex as a biological variable in the design and analysis of their research. [18].

Despite all these efforts, the evidence is overwhelming. A recent article published in 2018 by Hankivsky and colleagues which is related to promoting the study of sex and gender differences in scientific funding programs has proven that [22]:

- There is no evidence in scientific funding programs related to considering a gender-based analysis.
- There is not a universal consensus in how sex and gender aspects are conceptualized and considered in scientific research (methodological aspects).
- Funding agencies tend to prioritize equality in research teams rather in considering sex and gender considerations in research content and knowledge production.

#### 37.4 Preclinical Research: Cell and Animal Models

An underlying principle of drug development is that patients entering clinical trials should be reasonably representative of the population that will be later treated by the drug as subpopulations may respond differently to given drug treatment.

——European Medicines Agency (EMA). January 2005

More than two decades ago, the US Food and Drug Administration (FDA) created the Office of Women's Health (OWH), in order to improve and promote the health of US girls and women [2–4]. It was in 1993 when the US National Institutes of Health (NIH), pressed by some voices that proclaimed the study and consideration of sex differences in research, required the inclusion of women in NIH-funded clinical research studies [3, 4]. These new policies were done in order to progress and understand the processes and issues that affect women's health.

Since that, and despite scientific research and furthermore biomedical research has advance taking short but firm steps, there is limited knowledge about the differences presented by gender. Those differences are essential to understand the mechanisms and effects involved in medical research.

Sadly, however, this situation has not improved during these years. As shown by some authors, most of the preclinical studies have been conducted in male cells or male animal models. Some data indicates that almost 90% of preclinical research studies are done in nonhuman male animal models.

A study carried out analyzing gender bias in biological disciplines found a male bias in eight out of ten disciplines, among them, psychiatric disorders or neurological diseases. Most obvious sex bias was found in neuroscience, with a ratio of 5.5:1 (male, female), followed by pharmacology, 5:1 (male, female) [23]. These results are dramatic, as the underrepresentation of female nonhuman models has direct consequences in women's health.

This is not a new thing; again, the discrimination among the features of women's health has been relegated to a second line. Despite that, the Office of Research on Women's Health (ORWH) of the NIH describes in their website the importance of considering those differences presented by men and women. As said on their website [24]:

NIH is calling on scientists to take a deliberate approach in considering sex and gender in research to make sure that women and men get the full benefit of medical research.

The explanations usually provided by some researchers about this issue were under the pretext of methodological problems, such as difficulties to control estrogens levels in female models or just ignoring intrinsic differences presented by cells to sex hormones. It is well known that many neurological conditions are sexually dimorphic, and as said by this article, cell-structure studies have demonstrated that male (XY) and female (XX) neurons respond differently to various stimuli [25].

Apart from this, most of the studies carried out in female nonhuman animal models were related to reproductive considerations. Nevertheless, there were persistent reports of males and females differing in nonreproductive parameters, such as performance on learning tasks and associated neurophysiological correlates like hippocampal long-term potentiation (LTP) and cortical synapse number [26–28].

This situation, as said later, is not a recent problem. Diverse studies published in the 1990s have shown the existence of sex differences in the human brain [26–28]. Some of these differences imply neuroanatomical and neurochemical changes occurring in men and women. For that reason, some authors such as Margaret McCarthy and colleagues [29] have pointed out in animal models that sex is a crucial variable concerning some neurobiological processes, such as in the case of neurogenesis or synaptic physiology. In the case of the human brain, variable changes between sexes in brain region size and the morphology of cells and even in their pathway connections have been reviewed [29].

This situation has been defined as "androcentrism." This term refers to an androcentric thinking that assumes maleness to be normative [8, 30]. The historical maledominated system has influenced how research has been done over years. This way of thinking in preclinical research generates a gap in biomedical research related to women's health [8]. Despite the efforts of governments and public organizations trying to promote the inclusion of women in research, nowadays it remains insufficient.

This suggests to consider not only what type of models are we using but also what type of design experiments we should use and how are we going to analyze our data and report results. In fact, a comment published in 2014 in such an important magazine as *Nature* brought to light that there is a big problem in clinical research concerning the inclusion of female cells and rodents in clinical trials [25]:

Convention is another probable reason for reliance on the male-only models that have been typical in many research areas for decades. Lack of understanding about the potential magnitude of the effect of sex on the outcome being measured is likely to perpetuate this blind spot.

In 2015, the NIH established a new policy for the consideration of sex as a biological variable in the design of research studies. To this day, most of the studies published in biomedicine research do not consider sex as a biological variable in their design [31]. This situation has a direct impact and affects the future of biomedical research. Failing to consider biological differences presented between men and women possess a challenge in advance of medical knowledge.

Some authors have suggested that in preclinical research, there is a lack of rigor in how research is done. As said by Steve Perrin in an article published in *Nature* [32]:

Mice take the blame for one of the most uncomfortable truths in translational research. Even after animal studies suggest that a treatment will be safe and effective, more than 80% of potential therapeutics fail when tested in people. Animal models of disease are frequently condemned as poor predictors of whether an experimental drug can become an effective treatment.

This problem is not only intrinsic to cell and animal models but also is related to an inadequate analysis of the data of those researches that is not analyzed taking account an analysis of data by sex. The direct consequences of disregard sex analysis are the fundamental problem that probably the treatment probably would not be a replicable model in humans.

Despite the efforts given by some public organizations to reverse this situation, such as the NIH, promoting policies concerning sex- and gender-specific analysis, the problem remains real [3, 4]. Denying sex differences presented by cell and animal models in advance of new treatments in biomedical research is itself a serious step back for research about women's health. Given that animal models underpin the development of new treatments for a multitude of diseases, the consequences of this malpractice have severe implications for healthcare in women.

# 37.5 Gender Bias in Clinical Research: Where Have All the Women Gone?

Feminism is, of course, part of human rights in general--but to choose to use the vague expression 'human rights' is to deny the specific and particular problem of gender. It would be a way of pretending that it was not women who have, for centuries, been excluded. It would be a way of denying that the problem of gender targets women. That the problem was not about being human, but specifically about being a female human.

——Chimamanda Ngozi Adichie, We Should All Be Feminists.

The history of women's involvement in science, and later in research, dates back centuries ago, at a time when science was focused on the study of the male's body. From a social perspective, we cannot disdain the fact that the sociopolitical system influences the way women are seen and heard. In this sense, the feminist movement has shed light on how the social system based on male normativity influences women's health.

The general assumption adopted by scientist and intellectuals reinforced this general idea in the world of science that women's health was to be seen through the eyes of men and through the man's body. In fact, men's body and health were the gold standard in research, considering women (and in fact, other social minorities or disabled people) as "vulnerable subjects to study," and therefore excluded [2–4]. This idea reveals the state of subordination to which women have been subjected, denying the possible consequences on their health [8].

Scientific evidence has shown the presence of differences between men and women. We must consider not only intrinsic biological differences, like sexual dimorphism, but also how sociocultural factors influence men's and women's health. From sociology and anthropology, it has been widely described how social factors influence people's health and well-being. Women are more exposed to particular environmental stressors than do men, and they have to face social norms and attend to social stereotypes in order to fit into an increasingly demanding society [33]. The sociocultural conditions in which men and women live affect health outcomes directly. This worldwide reality increased the exposure to particular hazards. Among them, poverty, low level of education, social exclusion, and other related issues are a social reality that affects women's health [33].

The denial of women's health and well-being did not become relevant, as we have previously described, until the end of the last century. It was in the mid-1980s when the US public health agencies were exposed to the lack of knowledge about

women's health [2–4]. In fact, it was a woman who sounded the alarm. Since that, various attempts have been made by administrations and public organizations to consider the differences presented between men and women regarding health. It was the impulse of different women's organizations and associations that exposed the lack of a gender-based perspective.

As described by the NIH in its website, the inclusion of women in clinical trials must change from the basis of clinical research paradigm [34]:

Including women and diverse populations in research is not just a matter of enrolling women in clinical studies but requires changing norms of how research is made and designs, long before a volunteer signs up for a study.

Nowadays, we can take a look into medical population databases searching for a specific disease such as, for example, differences in presentation between men and women in cardiologic or neurodegenerative diseases. As described by Tasa-Vinyals and colleagues, the gender bias is a phenomenon that could be explained in two main areas: (a) a generalized bias occurring in biomedical research and (b) the bias that occurs in clinical practice [8]. Actually, women have to deal with the hostility of the health system, which has focused primarily on women's reproductive functions. Other aspects, such as the frequent overmedication of female discomfort through the use of certain psychotropic treatments (like anxiolytics and benzodiazepines), are of nonrelevant public dominion and, thus, neglected [8].

It is easy to realize that the current prevalence in clinical diagnoses between men and women is different. As a result of the dominant male normativity, sometimes women's complaints are not heard since they don't fit clinical standards. The way in which power dynamics, norms, and values are settled influences the health status and outcomes of the women [33]. Frequently, a woman having symptoms of heart attack is frequently misdiagnosed as having "anxiety symptoms" or "somatization" [8, 33].

Epidemiological studies have shown that men frequently experience more lifethreatening diseases and die younger, whereas women live longer but have more chronic conditions, disability, and thus, worse quality of life [33, 35].

As exposed by Rieker and Bird [35], there is considerable evidence that gender differences play a major role in the development of mental disorders. In fact, these authors show that the main problem in neurosciences is the lack of knowledge of how gender differences influence this complex interaction between social and biological factors [35].

In fact, some diseases have been associated with a women overrepresentation as in the case of autoimmune diseases, some types of cancer, cardiovascular diseases or psychiatric disorders. Among them, autoimmune diseases affect approximately 8% of the general population, 78% of whom are women [36]. More concretely, in Systemic Lupus Erythematosus (SLE), the overall prevalence is much higher in women compared with male counterpart (7.7–68.4 versus 0.8–7.0) [37].

In spite of this, and as mentioned in the previous section, the human body is made up of a complex interaction between different systems and mechanisms, such as hormones or the immune system, among other essential processes. The disturbance of one of these mechanisms can impact and alter normal functioning, having direct consequences in the whole system. As described by some authors, some diseases have been linked to produce the dysregulation of various mechanisms, between them, the production of pro-inflammatory processes through the immune-to-brain pathway [38] or the gut-brain axis [39]. The alteration of these pathways, affecting the normal function of brain processes, has been described in some psychiatric disorders, as in depression, bipolar disorders, and psychosis [38].

In recent years, greater attention has been paid to the study of gender differences in mental illness. In spite of this, to date few studies include sex and gender as potential variables to be considered in the results. Denying the presence of inherent differences between men and women represents a delay in scientific progress. We must not only take into account the presence of intrinsic differences at the biological level but also consider the influence of sociocultural factors on the development and evolution of such processes [8, 33, 35].

Despite all the shreds and efforts carried out concerning the inclusion of women in clinical trials and considering sex-gender-specific analysis, just over half of NIH-funded clinical research participants are women [3, 4]. Moreover, the consideration of sex-gender analysis inclusion in the methodological design of clinical studies remains insufficient.

As described by Clayton in 2014, we found serious problems in the inclusion of women in clinical trials, finding ourselves with just over half of the participants being women in publicly funded research [25]. In fact, it is widely described in the literature as certain drugs present different dosages and effects depending on sexrelated features [9, 25].

In order to make scientific research more transparent, the NIH established a registry of clinical studies (American register, clinicaltrials.org, and the European register, clinicaltrialsregister.eu) recommending the registry of such relevant information as it is: participant inclusion/exclusion criteria, percentage of women and men enrolled, or other sociocultural determinants, like race or ethnicity [40]. The goal of this measure is to make information about clinical trials transparent and available to everyone.

In April 2014, the European Parliament and of the Council dictated a new regulation on the authorization for clinical trials on "medicinal products for human use" to implement new standards to make clinical trials more safe and transparent. This new regulation comes into application in 2019 by the European Medicines Agency (EMA), for the regulation of conducting clinical trials, between the new policies presented [41]:

- The creation of a European Clinical Register, increasing the efficiency and transparency of clinical trials.
- The application of higher standard rules for conducting clinical trials throughout all the EU members.
- The publication of each clinical trial-relevant information and results, including the authorization, procedures, and results of each clinical trial carried out in EU.

This new regulation provides a scope in scientific research. No more women of childbearing potential are supposed to be excluded from clinical trials, and those women during breastfeeding may be included provided that it is considered a risk-benefit.

To this day, the number of women included in clinical trials is growing, but it is still insufficient. The enrollment of women in such studies remains relatively low in comparison of their overall representation of some diseases, been described to affect more women than men. Some of them have been mainly described in the literature, such as autoimmune diseases, cancer or Alzheimer. Governments and public organizations should focus, or at least reconsider, on implementing new policies to regulate the inclusion of women in science and research.

# 37.6 Gender Inequality in Research

Inequality and disdain for their achievements mark the history of women in science and access to knowledge. The world's first higher education institution was created by a woman (Fatima al-Fihri) in Fez, Morocco. Perhaps because of gender biases and xenophobia, the University of al-Qarawiyyin had to wait until a few years ago to be recognized as the oldest [42]. Another example of this inequality is the case of Lucrezia Cornaro Piscopia, considered the first woman to obtain a graduate degree. She studied in Bologna (where the current concept of University was coined), after seven centuries of an institution in which only men could study.

Thus, a constant is repeated regarding the future of society, marked by a systemic condition that has relegated women to a subordinate role. From different gender stereotypes, multiple barriers have arisen that have hindered the development of women in the scientific field (access to education, social and family norms, the role of care, or the ability to choose freely, among others). As a result, women have taken longer to devote themselves to this branch of knowledge. Besides, the resources they have been given have always been smaller, and they are subjected to constant invisibility, undervaluing their discoveries or being rejected.

It is true that there is an advance in this inequality, with greater incorporation of women in university students, but in individual branches of knowledge, as well as in the higher echelons of the scientific career, the presence of women is much lower than that of men. This reflects a disagreement with the number of women who have earned enough merit to reach these positions.

Their absence cannot be explained only by their later incorporation into university studies (after decades, the percentage of women is lower depending on which branch of science). Nor for less involvement in the workplace or reasons for aptitude, these are frequent prejudices in the general population (as shown by more than 65% of 5000 Europeans surveyed [43]) or even among the "elites of knowledge." In 2005, then-president of the University of Harvard, Lawrence H. Summers, defended (although later rectified) the superiority of men for biological reasons [44] and lack of intrinsic skills of women [45]. There is inconclusive data of a lower aptitude or worse attitude on the part of women for such knowledge and works [46, 47]. However, these differences can be explained by gender stereotypes [48, 49].

In the following lines, we will try to outline part of the factors that have hindered women's access to science, and we will propose lines of action in this respect so that, if we want to advance as much as possible in scientific knowledge, we stop wasting 50% of the available talent.

# 37.7 Gender Biases in Women's Access to Knowledge

Thanks to the efforts of women like Lucrezia Cornaro, the gender gap has partially diminished. The number of female graduates in the USA has doubled since the 1980s, practically equal to the percentage of men [50]. In the case of Europe (EU-15), there is a similar situation, although it varies from state to state; in Lithuania, for example, 63% of graduates in 2006 were women; in Italy, 52%; in Spain, 48%; and in France, 37% [51].

Although it is true that in Western countries the presence of university women is majority (EU-15 = 54.2%; USA = 56.7%) [52], the distribution according to branches of knowledge is unequal [53], which is known as horizontal segregation, a concept that reflects the predominance of women toward traditionally feminized sectors and the difficulty to access positions generally stipulated as "masculine" [54].

Women enrolled in university careers related to humanities or education fields account for more than two thirds in the EU and the USA, however, in careers related to science/mathematics are minority (37.7% and 41.1% respectively) and clearly segregated in engineering: in 2006, 25.3% of enrolments corresponded to European women, and 19.2% in the case of USA [50].

There is also no parity in the proportion of doctorates in 2012, where the average of theses read by men in the EU within the branch of knowledge "engineering, manufacturing, and construction" stands at 71.7% [55]. Although the data show a hopeful reduction in the gender gap, the speed at which this occurs is too slow; in many branches, especially those in which inequality has been greater (surgery, computer science, physics, or mathematics), the disparity will probably not disappear until the next century. This disparity varies between countries, with a more significant gap in Japan, Germany, and Switzerland [56].

Horizontal segregation is also objective in peer review or arbitration. It is a fundamental method in science to assess the quality of the papers presented. In this process, two experts in the field to be treated value the work in question separately; depending on the quality, the article may be published, or the best candidate will be awarded a scholarship. Although the evaluation aims to be anonymous and independent, men are 7% more likely to receive a favorable evaluation [57, 58]. As a consequence of horizontal segregation, inequality, in this case, is more pronounced in the applied sciences (as in clinical branch and health sciences in general) [58].

Nowadays, women are the majority when enrolling in university studies [59], and little by little, they equal their presence in the first levels of scientific work; however, they are still a minority in the highest echelons of the research hierarchy, thus appearing another type of segregation, "vertical." This "glass ceiling" prevents them from occupying positions with decision-making power and punishes them for worse working conditions, hindering their professional development.

The glass ceiling index (CGI) makes it possible to quantify this gap by measuring the relative opportunities of women compared to men in their ascent in the research career. It compares the proportion of women at the highest level (chairs, "full professor") with the total number of female researchers (including the entire range of qualifications, professors or incumbents, among others). This situation has been reviewed in the last years overall occupational areas [60, 61]. The higher the index, the higher the difficulty that women face in reaching the steps of greater success.

The glass ceiling differs according to the branch; in the case of Spain, it is higher in specialties related to engineering, technology, agriculture, and medical sciences. These data are also replicated in the EU, the proportion of women in humanities (27.0%) and social sciences (18.6%) contrasts with the percentage of women professors in the technical branches (7.2%) [55].

Even though inequality is decreasing, progress is plodding: in the 28 countries of the European Union (EU) as a whole, the GCI stood at 1.75 in 2013 [62], whereas in 2007, it stood at 1.8 [51]. In the case of Spanish women, there is also a favorable evolution toward equality; in 1995–1996, the GCI stood at 2.91 to go on to 2.34 13 years later [51]. It is possible that the situation is more favorable due to the generational effect: more women joining research, therefore a higher proportion of women candidates for positions of greater responsibility in the coming years/ decades according to the area of knowledge, although it is not the only one, with differences attributable to gender appearing again.

The proportion of women in management positions appears to be improving in the EU. In 2010 they occupied 15.5% of management positions in university education, 3 years later 20.1%. It is necessary to point out the significant difference between countries: in France or Cyprus, women occupied one out of ten positions, while in Serbia parity was reached [62, 63].

In the field of psychiatry, the pattern of inequality in relevant positions also seems to be perpetuated. The European Psychiatric Association is currently chaired by a woman (Silvana Galderisi; 2017–2018). Of the 16 presidents who have had, only 2 have been women (and the first, Danuta Wasserman, was not until 2013) [64]. This association represents nearly 80,000 psychiatrists in Europe by bringing together 43 national psychiatric associations; in 2018, of the 42 societies reviewed, 29 are chaired by men and 13 by women.

Underrepresentation by gender in the most essential positions has a direct impact on equality. When there is a male majority, fewer measures are taken in favor of the equitable redistribution of resources [65], a situation that improves when parity exists [66]. Thus, fewer women enter in the scientific career and progress with higher difficulty.

Another persistent problem is the systematic loss of women throughout the research career [63], as well as their incorporation to the teaching staff after finishing the postdoctoral degree [67]. In a survey by the Royal Society of Chemistry in London, 72% of first-year students wanted to pursue a research career, rising to 37% by the third year (compared to 61% of males in the first year and 59% in the third) [68]. As a result, after graduating, 60% of men leave university, compared to 75% of women [69]. This phenomenon is known as "the leaky pipeline," and as they progress through the scientific channel, part of the people tends to "filter" and move away from research.

Among the multiple causes are the male traits that dominate science and are sometimes hostile to women [70, 71]. Another reason has to do with the organization of work, which makes it very difficult to reconcile family life [72, 73]. The competence of women scientists who are mothers is questioned, worsening their salary and conditions, an aspect that does not seem to affect men [74].

It has sometimes been argued that inequality is due to differences in achievements; progress in the scientific hierarchy is identified with a fair and unbiased meritocratic system. However, this does not seem so real: in a Swedish analysis of the award of postdoctoral scholarships, women had to be 2.5 times more productive in order to obtain scores similar to men in order to receive a scholarship [75, 76]. This may be one of the reasons why women publish fewer articles, in addition to gender biases at the time of selection [58], because they are less often cited as first authors [77], or directly because they are erroneously cited as men [78].

#### 37.8 Conclusion

The history of women's involvement in science is a history where denial and subordination have been imposed as a cruise route. Despite a shift from the traditional medical model to a more integrative biopsychosocial model, in which sociocultural factors play a major role in people's health and well-being, women's health has been relegated to the background for many years. The normative androcentric thinking settled in scientific society has dug deep the way in which research is approached and carried out.

The denial of the differences presented between men and women increases the lack of knowledge regarding their health. Women do face particular environmental stressors than men do, and they have to face with social norms and attend to social stereotypes in order to fit into an increasingly demanding society. The way women perceive the world directly affects their health. Sociocultural contingencies such as poverty, inequality of opportunities in access to job, and the denial of their rights affect women's health.

Thus, and despite the different efforts and steps were taken concerning the attainment of the equity of women in all spheres of the biomedical field, it is insufficient to date. The consideration of new measures from a gender-based perspective should be applied to promote the same rights between men and women.

#### References

- Pawełczyńska A. Values and violence in Auschwitz: a sociological analysis. Berkeley: University of California Press; 1992.
- McCarthy CR. Historical background of clinical trials involving women and minorities. Acad Med. 1994;69(9):695–8.
- Dusenbery M. Doing harm. The truth about how bad medicine and lazy science leave women dismissed, misdiagnosed, and sick. 1st ed. New York: HarperOne; 2017.
- Liu KA, Dipietro Mager NA. Women's involvement in clinical trials: historical perspective and future implications. Pharm Pract (Granada). 2016;14(1):708.

- 5. Badcock J. Spain's forgotten Thalidomide victims see glimmer of hope [Internet]. BBC News. 2016 [cited 4 September 2018]. https://www.bbc.com/news/world-38386021.
- Reyes EB. Supreme court denies compensation to Spain's "thalidomide babies". El País. 2015 [cited 4 September 2018]. https://elpais.com/elpais/2015/09/23/inenglish/1443018227\_674922.html.
- IARC Working Group on the Evaluation of Carcinogenic Risk to Humans. Pharmaceuticals. Lyon (FR): International Agency for Research on Cancer; 2012. (IARC Monographs on the Evaluation of Carcinogenic Risks to Humans, No. 100A.) DIETHYLSTILBESTROL. https:// www.ncbi.nlm.nih.gov/books/NBK304340/.
- Tasa-Vinyals E, Giral MM, Raich RM. Sesgo de género en medicina: concepto y estado de la cuestión. Cuadernos de medicina psicosomática y psiquiatria de enlace, vol. 113; 2015. p. 14–25.
- Harris RZ, Benet LZ, Schwartz JB. Gender effects in pharmacokinetics and pharmacodynamics. Drugs. 1995;50(2):222–39.
- Noh Y, Yoon D, Song I, Jeong HE, Bae JH, Shin J. Discrepancies in the evidence and recommendation levels of pregnancy information in prescription drug labeling in the United States, United Kingdom, Japan, and Korea. J Women's Health. 2018;27(9):186–1092.
- Daw JR, Hanley GE, Greyson DL, Morgan SG. Prescription drug use during pregnancy in developed countries: a systematic review. Pharmacoepidemiol Drug Saf. 2011;20(9):895–902.
- 12. Yazdy M, Desai R, Brogly S. Prescription opioids in pregnancy and birth outcomes: a review of the literature. J Pediatr Genet. 2015;4(2):56.
- Vigod SN, Gomes T, Wilton AS, Taylor VH, Ray JG. Antipsychotic drug use in pregnancy: high dimensional, propensity matched, population based cohort study. Br Med J. 2015;350:h2298.
- 14. Bookstaver PB, Bland CM, Griffin B, Stover KR, Eiland LS, McLaughlin M. A review of antibiotic use in pregnancy. Pharmacotherapy. 2015;35(11):1052–62.
- 15. Chappell LC, David AL. Pregnancy-associated changes in pharmacokinetics: a systematic review. PLoS Med. 2016;13(11):e1002160.
- Scaffidi J, Mol B, Keelan J. The pregnant women as a drug orphan: a global survey of registered clinical trials of pharmacological interventions in pregnancy. BJOG. 2017;124(1):132–40.
- 17. Little MO, Lyerly AD, Faden RR. Pregnant women & medical research: a moral imperative. Bioethics Forum. 2009;2(2):60–5.
- 18. Tannenbaum C, Greaves L, Graham ID. Why sex and gender matter in implementation research. BMC Med Res Methodol. 2016;16(1):145–9.
- Poczatková B, Křibíková P. Gender inequality in the field of science and research. J Int Stud. 2017;10(1):267–76.
- 20. Miller LR, Marks C, Becker JB, Hurn PD, Chen W, Woodruff T, et al. Considering sex as a biological variable in preclinical research. FASEB J. 2017;31(1):29–34.
- 21. Howard LM, Oram S, Gamlen F, Ehrlich AM. Gender-neutral mental health research is sex and gender biased. Lancet Psychiatry. 2016;4(1):9–11.
- 22. Hankivsky O, Springer KW, Hunting G. Beyond sex and gender difference in funding and reporting of health research. Res Integr Peer Rev. 2018;3:6.
- 23. Zucker I, Beery AK. Males still dominate animal studies. Nature. 2010 Jun 10;465(7299):690.
- National Institutes of Health. Office of research on Women's health [Internet]. 2018 [cited 4 September 2018]. https://orwh.od.nih.gov/sex-gender/nih-policy-sex-biological-variable.
- 25. Clayton JA, Collins FS. Policy: NIH to balance sex in cell and animal studies. Nature. 2014;509(7500):282-3.
- Allen LS, Hines M, Shryne JE, Gorski RA. Two sexually dimorphic cell groups in the human brain. J Neurosci. 1989;9(2):497–506.
- 27. Kelly SJ, Ostrowski NL, Wilson MA. Gender differences in brain and behavior. Horm Neural Bases Pharmacol Biochem Behav. 1999;64(4):655–64.
- 28. Whitacre CC, Reingold SC, O'Looney PA. A gender gap in autoimmunity. Science. 1999;283(5406):1277–8.
- McCarthy MM, Nugent BM, Lenz KM. Neuroimmunology and neuroepigenetics in the establishment of sex differences in the brain. Nat Rev Neurosci. 2017;18(8):471–84.

- 30. Hegarty P, Buechel C. Androcentric reporting of gender differences in APA journals. Rev Gen Psychol. 2006;10(4):377–89.
- 31. Potluri T, Engle K, Fink AL, Vom Steeg LG, Klein SL. Sex reporting in preclinical microbiological and immunological research. MBio. 2017;8(6):e01868.
- PerrinS.Preclinicalresearch: makemouse studies work. Nature. 2014;507:423 [cited 12 September 2018]. https://www.nature.com/news/preclinical-research-make-mouse-studies-work-1.14913.
- 33. Langer A, Meleis A, Knaul FM, Atun R, Aran M, Arreola-Ornelas H, et al. Women and health: the key for sustainable development. Lancet. 2015;386(9999):1165–210.
- National Institutes of Health. Office of research on Women's health [Internet]. 2016 [cited 4 September 2018]. https://orwh.od.nih.gov/sites/orwh/files/docs/NOT-OD-15-102\_Guidance.pdf.
- 35. Rieker PP, Bird CE. Rethinking gender differences in health: why we need to integrate social and biological perspectives. J Gerontol B Psychol Sci Soc Sci. 2005;60(Special\_Issue\_2):S47.
- 36. Fairweather D, Rose NR. Women and autoimmune diseases. Emerg Infect Dis. 2004;10(11):2005–11.
- 37. Jakes RW, Bae S, Louthrenoo W, Mok C, Navarra SV, Kwon N. Systematic review of the epidemiology of systemic lupus erythematosus in the Asia-Pacific region: Prevalence, incidence, clinical features, and mortality. Arthritis Care Res. 2012;64(2):159–68.
- 38. Johnson RW, Kelley KW, O'Connor JC, Dantzer R, Freund GG. From inflammation to sickness and depression: when the immune system subjugates the brain. Nature Rev Neurosci. 2008;9(1):46–56.
- 39. Foster JA, McVey Neufeld K. Gut-brain axis: how the microbiome influences anxiety and depression. Trends Neurosci. 2013;36(5):305–12.
- 40. Committee on Ethical and Legal Issues Relating to the Inclusion of Women in Clinical Studies, Institute of Medicine. Women and Health Research: Ethical and Legal Issues of Including Women in Clinical Studies, vol. 1. National Academies Press; 1994.
- 41. European Medicines Agency [Internet]. 2014 [cited 21 September 2018]. https://www.ema.europa.eu/human-regulatory/research-development/clinical-trials/clinical-trial-regulation.
- 42. United Nations, Educational Scientific and Cultural Organization [Internet]. 2018 [cited 22 September 2018]. http://whc.unesco.org/es/list/170.
- 43. L'Oreal Foundation. The LOréal Foundation unveils the results of its exclusive international study #ChangeTheNumbers [Internet]. 2015 [cited 22 September 2018]. https://www.loreal.com/media/press-releases/2015/sep/the-loreal-foundation-unveils-the-results-of-its-exclusive-international-study.
- 44. Goldener, S. The Guardian. Why women are poot at science, by Harvard president [Internet]. 2005 [cited 22 September 2018]. https://www.theguardian.com/science/2005/jan/18/educationsgendergap.genderissues.
- 45. Summers, LH. Harvard. Remarks at NBER Conference on Diversifying the Science & Engineering Workforce [Internet]. 2005 [cited 22 September 2018]. https://www.harvard.edu/president/speeches/summers\_2005/nber.php.
- 46. Wenneras C, Wold A. Nepotism and sexism in peer-review. Nature. 1997;387(6631):341–3.
- 47. Barres BA. Does gender matter? Nature. 2006;442(7099):133-6.
- 48. Petersen J, Hyde JS. Gender-related academic and occupational interests and goals. Adv Child Dev Behav. 2014;47:43–76.
- 49. Leslie SJ, Cimpian A, Meyer M, Freeland E. Expectations of brilliance underlie gender distributions across academic disciplines. Science. 2015;347(6219):262–5.
- 50. Shen H. Inequality quantified: Mind the gender gap. Nature. 2013;495(7439):22-4.
- 51. She figures 2009: statistics and indicators on gender equality in science. Publications Office of the European Union; 2009.
- 52. Sánchez Madariaga I, Rica SL, Dolado JJ. Libro blanco: Situación de las mujeres en la ciencia española. Ministerio de Ciencia y Innovación. 2011.
- West JD, Jacquet J, King MM, Correll SJ, Bergstrom CT. The role of gender in scholarly authorship. PLoS One. 2013;8(7):e66212. Published 2013 Jul 22. https://doi.org/10.1371/journal.pone.0066212.
- Anker R. Gender and jobs: sex segregation of occupations in the world [Internet]. Labour Office; 1998.

- 55. Ministerio de Economía, Industria y Competitividad. CIENTÍFICAS EN CIFRAS 2013. Estadísticas e indicadores de la (des)igualdad de género en la formación y profesión científica [Internet]. 2015. http://www.ciencia.gob.es/stfls/MICINN/Ministerio/FICHEROS/Informe\_Cientificas\_en\_Cifras\_2015\_con\_Anexo.pdf.
- 56. Holman L, Stuart-Fox D, Hauser CE. The gender gap in science: how long until women are equally represented? PLoS Biol. 2018;16(4):e2004956.
- Bornmann L, Mutz R, Daniel H. Gender differences in grant peer review: A meta-analysis. J Informetr. 2007;1(3):226–38.
- 58. Tamblyn R, Girard N, Qian CJ, Hanley J. Assessment of potential bias in research grant peer review in Canada. CMAJ. 2018;190(16):E499.
- Secretaria de Estado de Asuntos Sociales e Igualdad. Instituto de la Mujer. Las mujeres en España [Internet]. 2013 [cited 22 September 2018]. https://www.ehu.eus/documents/2007376/0/mujeres\_en\_cifras\_junio.
- 60. Arzubiaga U, Iturralde T, Maseda A, Kotlar J. Entrepreneurial orientation and firm performance in family SMEs: the moderating effects of family, women, and strategic involvement in the board of directors. Int Entrep Manag J. 2018;14(1):217–44.
- 61. Gennari F. European women on boards and corporate sustainability. In: Paoloni P, Lombardi R, editors. Advances in gender and cultural research in business and economics. IPAZIA 2018. Springer proceedings in business and economics. Cham: Springer.
- 62. She figures 2015. Gender in research and innovation. Publications Office of the European Union; 2016.
- 63. Shaw AK, Stanton DE. Leaks in the pipeline: separating demographic inertia from ongoing gender differences in academia. Proc R Soc B. 2012;279:3736–41.
- 64. European Psychiatric Association. EPA National Psychiatric Society/Association Members [Internet]. 2018. [cited 21 September 2018]. https://www.europsy.net/about-epa/national-societies/
- 65. Chen L. Do gender quotas influence women.s representation and policies? Eur J Comp Econ. 2010;7(1):13–60.
- 66. Kirsch A, Blaschke S. Women's quotas and their effects: a comparison of austrian and german trade unions. Eur J Ind Relat. 2014;20(3):201–17.
- 67. Martinez ED, Botos J, Dohoney KM, Geiman TM, Kolla SS, Olivera A, et al. Falling off the academic bandwagon. Women are more likely to quit at the postdoc to principal investigator transition. EMBO Rep. 2007;8(11):977–81.
- 68. Royal Society of Chemistry. Change of heart: career intentions and the chemistry PhD [Internet]. 2008 [cited 22 September 2018]. http://www.rsc.org/globalassets/02-about-us/our-strategy/diversity-community-hub/2008changeofheart\_career-intentions-and-the-chemistry-phd.pdf.
- 69. Department of Trade and Industry. Report for the Office of Science and Technology and the Department of Trade and Industry. Maximising returns to science, engineering and technology careers [Internet]. 2002 [cited 22 September 2018]. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/272133/6536.pdf.
- 70. Smyth FL, Nosek BA. On the gender–science stereotypes held by scientists: explicit accord with gender-ratios, implicit accord with scientific identity. Front Psychol. 2015;6:1–19.
- 71. Rose H. Love, power and knowledge. Bloomington: Indiana Univ. Press; 1994.
- 72. Rossi AS. Women in science: why so few? Science. 148(3674):1196.
- Bailyn L. Academic Careers and Gender Equity: Lessons Learned from MIT1. Gend Work Organ. 2003;10(2):137–53.
- 74. Correll S, Benard S, Paik I. Getting a job: is there a motherhood penalty? Am J Sociol. 2007;112(5):1297–339.
- 75. Wennerås C, Wold A. Nepotism and sexism in peer-review. Nature. 1997;387(6631):341–3.
- 76. Ley TJ, Hamilton BH. Sociology. The gender gap in NIH grant applications. Science. 2008;322(5907):1472–4.
- 77. Elsevier. Gender in the global research landscape [Internet]. 2017 [cited 22 September 2018]. https://www.elsevier.com/research-intelligence/campaigns/gender-17.
- 78. Krawczyk M. Are all researchers male? Gender misattributions in citations. Scientometrics. 2017;110(3):1397–402.