Gender Dysphoria

12

Rafael Segarra-Echebarría, Beatriz Rodríguez-Paz, Arantzazu Zabala-Rabadán, and Margarita Sáenz-Herrero

One day I'll grow up, I'll be a beautiful woman.
One day I'll grow up, I'll be a beautiful girl.
But for today I am a child, for today I am a boy . . .
Antony and The Johnsons, For today I'm a boy

Abstract

Individuals with gender dysphoria (GD) have a marked incongruence between the gender they have been assigned (usually at birth, referred to as natal gender) and the gender they have experienced/expressed. This discrepancy is the core component of the diagnosis. There must also be evidence of distress about this incongruence. Experienced gender may include alternative gender identities beyond binary stereotypes. Consequently, the distress is not limited to a desire to simply be of the other gender, but may include a desire to be of an alternative gender, provided that it differs from the individual's assigned gender.

The debate about whether GD should be in the *Diagnostic and Statistical Manual of Mental Disorders* has been going on for decades. As psychiatry's professionals, we are sure that being transsexual, transgender, or gender nonconforming is a matter of diversity, not necessarily pathology. The World Professional Association for Transgender Health released in May 2010 a

R. Segarra-Echebarría (✉)
Cruces University Hospital, Bilbao, Spain

University of the Basque Country, UPV/EHU, Cruces, Spain
e-mail: rafaelsegarraechevarria@osakidetza.net

B. Rodríguez-Paz
Lucus Augusti University Hospital, Lugo, Spain

A. Zabala-Rabadán
University of the Basque Country, UPV/EHU, Leioa, Spain

M. Sáenz-Herrero
University of the Basque Country, UPV/EHU, Araba, Spain

Araba University Hospital, Vitoria, Spain

M. Sáenz-Herrero (ed.), *Psychopathology in Women*,
DOI 10.1007/978-3-319-05870-2_12

statement urging the de-psychopathologization of gender nonconformity worldwide. This statement noted that the expression of gender characteristics (including identities) that are not stereotypically associated with one's assigned sex at birth is a common and culturally diverse human phenomenon that should not be judged as inherently pathological or negative.

Only some gender-nonconforming people experience GD at some point in their lives. Treatment is available to assist people with such distress to explore their gender identity and find a gender role that is comfortable for them.

12.1 Introduction: Gender Dysphoria and the So-Called Third Sex—The Crying Light

Gender dysphoria (GD) is a new controversial diagnostic class in the American Psychiatric Association's (APA) *Diagnostic Statistical Manual of Mental Disorders* (DSM) 5 [1], and it reflects a change in the conceptualization of the disorder's defining features, emphasizing the phenomenon of "gender incongruence" rather than cross-gender identification per se, as was the case in DSM-IV: gender identity disorder (GID) [2].

DSM-5's GD includes separate sets of criteria for children and for adults and adolescents. For the adolescent and adult criteria, the previous criterion A (cross-gender identification) and criterion B (aversion toward one's gender) are merged. In the wording of the criteria, "the other sex" is replaced by "the other gender" (or "some alternative gender") [1]. This change may not be much, but it can be considered a starting point.

Gender instead of sex is used systematically because the concept "sex" is inadequate when referring to individuals with a disorder of sex development. In the children's criteria, a "strong desire to be of the other gender" replaces the previous "repeatedly stated desire to be the other sex" to capture the situation of some children who, in a coercitive environment, may not verbalize the desire to be of another gender.

For children, criterion A1 ("a strong desire to be of the other gender or an insistence that he or she is the other gender") is now necessary but not sufficient, which makes the diagnosis more restrictive and conservative. The subtyping on the basis of sexual orientation is removed because that distinction is no longer considered clinically useful [1].

A post-transition specifier has been added to identify individuals who have undergone at least one medical procedure or treatment to support the new gender assignment (i.e., cross-sex hormone treatment). Although the concept of post-transition is modeled on the concept of full or partial remission, the term *remission* has implications in terms of symptom reduction that do not apply directly to GD [1].

That is the APA's proposal. Now we go further into controversy: Matt Kailey is an award-winning author, blogger, professor, and transgender community activist. He began his transition from female to male in 1997, and since then he has educated, enlightened, and entertained audiences across the USA and the world through his writing and presentations focusing on transgender issues. He has

appeared in five documentary films and is the recipient of four community awards for activism. His book *Just Add Hormones: An Insider's Guide to the Transsexual Experience* was a Lambda Literary Award finalist, and his short story *Cam's Decision* was the recipient of the Poets & Writers Inc. Writers Exchange Award for fiction. Matt's latest book, *Teeny Weenies and Other Short Subjects*, is a collection of humorous essays about his life before and after transition. He's also working on a series of short books offering 10 tips for those involved with "trans" people. He's also a part-time college-level psychology instructor and teaches his own class, *Writing Your Gender*, offering college students a chance to explore their own gender through the art of personal essay.

With reference to Matt Kailey's Tranifesto blog (transgender and transexual issues, information, advice, and opinion) we take a look at his opinion posted 16 April 2012 (http://tranifesto.com/2012/04/16/ask-matt-should-gender-dysphoria-be-in-the-dsm/), just a year before DSM-5 was published:

> The debate about whether or not GID (or some other language that represents a similar "condition") should be in the DSM (Diagnostic and Statistical Manual of Mental Disorders) has been going on for at least as long as I have been in the community. I first learned of the debate when I began transition fifteen years ago.
>
> The DSM-5 is scheduled to be released in May of 2013, and at this point, it appears that GID will now be called Gender Dysphoria (GD), but I don't think it's as simple as a name change. There are various pieces of the diagnosis that have been changed or moved to different categories within the DSM-5, and there have been other changes in language.
>
> Some people feel that these changes are positive, while others want certain categories out of the DSM altogether. However, my understanding is that it will appear as GD in the DSM-5.
>
> But in the limited space of a blog, with the knowledge that I have, we can look at your question: is it good or bad to remove ourselves from the DSM at this point in time?
>
> It turns out to be a moot point, because GD will be in the DSM-5. However, the arguments at their most basic level are:
>
> We should be in the DSM, because if we are not, we will not be seen as having a legitimate condition that requires medical intervention. We will be seen as "choosing" transition, and we will not be taken seriously. Any strides that we have made with regard to insurance paying for transition procedures will stall. We need the backing of the medical and psychiatric communities in order to realize full rights and full equality.
> We should not be in the DSM, because we do not have a mental health disorder. If anything, we have a medical condition that was present at birth and is possibly due to hormonal fluctuations during pregnancy or we do not have any kind of "condition" at all, and we are simply one of many ways to be as human. By virtue of our humanity, we are equal to all other humans, and by virtue of a strongly demonstrated need to align our body with our gender identity, we should be able to transition with informed consent and with the understanding from insurance companies and medical professionals that transition is a medical necessity.
>
> My own opinion is that I would like to see GID, GD, or whatever psychiatric label comes about for people whose gender identity does not align with their physical sex (or sex assigned at birth) removed from the DSM. I don't think that my "condition" is a mental health issue.

> Research has demonstrated that transition, a series of medical procedures, can reduce or eliminate the suicidal ideation and other emotional difficulties that many trans people experience. Therefore, I believe that this is a medical issue and should be treated as such. However, there are some trans people who think that even that is too pathologizing, and that transition procedures should be available as on-demand procedures, with the idea that we know our own bodies and minds and should have the right to make our own decisions about care.
>
> I agree with this as well, and this is where I am torn. I believe that I am responsible for my own body, and that I am capable of making decisions about it. I don't think that I should have to jump through a bunch of someone else's hoops to do what is best for me. But if gender issues are not part of either a psychiatric or a medical diagnosis, and transition procedures can be issued upon request, then transition becomes a series of "elective" procedures, not considered medically necessary, not covered by insurance or other medical programs, and not recognized as a life-saving intervention.
>
> A quick aside about language: I generally say "we are in the DSM" or "I am in the DSM" simply for ease of communication. The truth is that we are not in the DSM and I am not in the DSM. I am diagnosed with a "condition" that appears in the DSM. I think it's an important distinction, at least when thinking about yourself as a trans person. We are not our diagnosis".

Certainly it seems difficult to disagree whith his first-person point of view. Moreover, after 15 years of revision, the American Psychiatric Association's board of trustees approved the changes, including the removal of the term GID. Simultaneously, the term GD will be used to diagnose the distress occurring over a marked incongruence between a person's experienced gender and their assigned gender.

Although linguistically subtle, the difference between "disorder" and "dysphoria" should have a huge impact on the outlook and treatment of transgendered individuals.

According to the National Institute of Mental Health (NIMH), disorders are thought of as a clinically significant behavior, psychologically syndrome, or a pattern that occurs in an individual typically associated with distress, painful symptomology, disability or impairment.

Dysphoria, on the other hand, is a psychological state that causes one to experience feelings of anxiety, restlessness, and depression. It is not necessarily diagnosable, or something that would be identified in the DSM, but it is more a state of being, a feeling of unpleasantness or discomfort.

The previous diagnosis of GID implied that the problem might lie within the client, further suggesting that the client might need to be cured or somehow mentally and emotionally fixed. The pending reclassification speaks to the mental state that accompanies being transgendered within this society.

Rather than indicating that a person needs to be fixed, the diagnosis indicates that the issues that need to be addressed lie outside the individual. Kelly Winters, from the group GID Reform Advocates, believes that the change in diagnosis signifies that "the problem to be treated is not the person's identity, but rather the distress that is often experienced by those who need access to medical transition care" (http://dot429.com/articles/2125-from-disorder-to-dysphoria-transgender-identity-and-the-dsm-v).

Although transgender individuals are still dependent upon these institutions, the removal of GID is compared with the organization's declassification of homosexuality as a mental disorder in 1973. Prior to its removal, homosexuality was a reason for therapy and institutionalization.

Although the social climate and treatment of mental health patients have changed since gays and lesbians could be deinstitutionalized for their diagnosis, transgendered individuals who were diagnosed with GID were still left potentially vulnerable to medical and mental health workers.

Winters further states that the change in the diagnosis signals a change of attitude within the APA that our gender identities are no longer considered the focus of pathology (http://dot429.com/articles/2125-from-disorder-to-dysphoria-transgender-identity-and-the-dsm-v).

But the fact remains that trans and especially transsexual people needing hormonal or surgical transition care are still classified as having a mental disorder.

Although this keeps the relationship between the transgendered community and health institutions strong, because of the need for hormones and surgeries, it does show a cultural shift in acceptance and understanding.

Prior to the change, the term "disorder" gave the impression, both socially and psychologically, that there was something damaged or dangerous about transgendered individuals, much like a mood disorder would make someone feel that he or she was unstable or unable to function in society.

Removing the stigma is the first step in social change, taking the transgender community out of the mental health field toward an accepting society.

It is time to write about biopolitics, 30 years afters Michel Foucault's death. This French philosopher, social theorist, and philologist's works remain among the most important writings for understanding the relationship between society and mental disorder. According to Foucault, madness, crime or sexual deviance categories are constructed according to political discourses to normalize them. From this perspective, it is necessary to note that being different is not being sick. The main question formulated by Foucault (it must be highlighted that it came about when he was still a young student who was completing his training at the Hospital of Sainte Anne in Paris) could hardly be more clear and was aimed at the root of the issue, "I had also followed psychopathology studies, an alleged discipline that didn't teach too much. Then I raised the question: how a little knowledge can drag so much power?" [3].

Foucault contemplates why society delegates such great power to mental health professionals, and wonders whether it will be because they fulfill the specific function of social control to serve the interests of the system, and not by the value of their scientists' knowledge, scarce in some historical periods, as he stated in his works, without diminishing his power at all. For Foucault psychiatric diagnosis is not something objective or neutral, but is linked to what he called biopolitics, which would be an attempt by the authorities to control the health, hygiene, power, sexuality, and birth since they are political issues, mainly from the eighteenth century. Also, Foucault introduces the concept of *episteme*, which would be the thought structure of each historical period [3].

Thus, according to Foucault, psychiatry is not an exact science, but it is conditioned by the historical moment *episteme*. In itself, as transcultural psychiatry demonstrates (and as already raised with great acuity by Karen Horney in the 1950s) [4], we have not even yet had a definition of what mental health and mental disorder are, because they depend on the social and cultural contexts, which are obviously linked to power relations. In one of his first books, *Madness and Civilization: a History of Insanity in the Age of Reason* [5], Foucault notes that in medieval times madness was considered a sacred mystery that was part of the vast field of human experience. Also, in the Renaissance, madness was seen as a special kind of ironic reason to show this ridiculous world. Insanity was tragic and comic at once. This image crystallizes in the "ship of fools," a group of people who stood outside of society, but they were also considered pilgrims searching for reason and by extension, the reason of the world, representing the connection between order and chaos.

As Lisa Downing points out [6], Foucault argues that in the Middle Age and in the Renaissance, madness was seen as an integral human phenomenon. Madness opposed reason, but as an alternative mode of human existence, not as its simple rejection. He understands *The Praise of Folly* by Erasmus or the tragedies of Shakespeare in this way. Until the Enlightenment, madness was seen as an imaginary place, a crossing between the world and what is behind it, between life and death, between the tangible and the sacred.

In the Classical Period (1700s and 1800s), the great change takes place, and insanity becomes unreason, something linked to the inhumane, opposed to the rational in the Cartesian approach. With the advent of the modern therapeutic, the madman returns to the society again but is subjected to a moral therapy. Foucault criticizes Pinel, much admired in the history of psychiatry, because he freed the patients from their chains at Bicêtre in 1793; or Samuel Tuke in England who founded a Quaker asylum for the alienated. As Downing points out, to Foucault, neither one nor the other was a proper philanthropist, or introduced a humanitarian twist to the insanity treatment, as the history of psychiatry has shown us. Actually, he considers that Tuke's treatment had a strong component of bourgeois morality because it sought that alienated behavior did not disturb the morals of society. According to Foucault, Tuke replaced the terror of madness with the anguish of bourgeois morality. As it is known, Tuke organized "tea parties" where he taught insane people to be polite and to behave according to established social norms. Foucault maintained that Tuke did not leave mad people to express themselves. Meanwhile, regarding Pinel, Foucault considered that the asylum still maintaining the insane is also an authority system. The alienated is now free of his chains, but is a prisoner of bourgeois morality [5].

At the end of the Enlightenment another important change occurs, the madman becomes "mentally ill." But the authority of the physician is not scientific; it is the authority conferred by society. Thus, the use of the term disease legitimates the physician's work. As Dawning argues, to Foucault, and since the Enlightenment, the new social area of madness has become an object of knowledge. The character of the doctor, psychiatrist, psychologist, becomes the subject of that knowledge [5].

Coming back to the topic of GD, we can assure that being transsexual, transgender, or gender nonconforming is a matter of diversity, not necessarily pathological. The World Professional Association for Transgender Health (WPATH) released a statement in May 2010 urging the de-psychopathologization of gender nonconformity worldwide. This statement noted that "the expression of gender characteristics, including identities, that are not stereotypically associated with one's assigned sex at birth is a common and culturally diverse human phenomenon [that] should not be judged as inherently pathological or negative" [7].

Unfortunately, there is a stigma attached to gender nonconformity in many societies around the world. Such a stigma can lead to prejudice and discrimination, resulting in "minority stress." Minority stress is unique (additive to general stressors experienced by all people), socially based, and chronic, and may make transsexual, transgender, and gender-nonconforming individuals more vulnerable to developing mental health problems such as anxiety and depression. In addition to prejudice and discrimination in society at large, stigma can contribute to abuse and neglect in one's relationships with peers and family members, which in turn can lead to psychological distress. However, these symptoms are socially induced and are not inherent to being transsexual, transgender, or gender-nonconforming.

Incidentally, gender nonconformity refers to the extent to which a person's gender identity, role, or expression differs from the cultural norms prescribed for people of a particular sex. GD refers to the discomfort or distress that is caused by a discrepancy between a person's gender identity and that person's sex assigned at birth (and the associated gender role and/or primary and secondary sex characteristics). Only some gender-nonconforming people experience GD at some point in their lives [7].

Treatment is available to assist people with such distress to explore their gender identity and find a gender role that is comfortable for them. Treatment is individualized: what helps one person alleviate GD might be very different from what helps another person. This process may or may not involve a change in gender expression or body modifications. Medical treatment options include, for example, feminization or masculinization of the body through hormone therapy and/or surgery, which are effective in alleviating GD and are medically necessary for many people. Gender identities and expressions are diverse, and hormones and surgery are just two of many options available to assist people with achieving comfort with self and identity.

Gender dysphoria can largely be alleviated through treatment. Hence, while transsexual, transgender, and gender-nonconforming people may experience GD at some point in their lives, many individuals who receive treatment will find a gender role and expression that is comfortable for them, even if these differ from those associated with their sex assigned at birth, or from prevailing gender norms and expectations [7].

This may be the starting point that leads us to consider the "third sex." Australia and Germany have recognized gender-neutral, while the intersex community begins to organize to fight for their rights. In the book "Evolution's Rainbow" [8] the American biologist, Joan Roughgarden, reveals how half of all species on earth,

whether animal or vegetable, could not be included in the classification of male or female. Most plants are hermaphrodites and some animals, such as barnacles, snails, starfish, and many fish, begin their life as males and then become females or vice versa.

Humans have always been very clear about the sexual binary scheme; however, this is not always the case, and many begin to question this model. In 2013, Australia and Germany recognized gender neutral, i.e., the possibility that a citizen of these countries should not be necessarily registered as male or female, but leave the box for sex unchecked. Germany is the first European country to approve this initiative and it seems that in the coming years we will see others join in with this policy.

For many, this decision sets the stage for combat, so far the usual habit of practicing genital surgeries in neonates when their sexual organs are not clear, or when they present physiological characteristics of both sexes. The boy/girl child has to be defined as a man or woman to enroll in the registry and, in most cases, it is decided by the doctor, who chooses to give priority to the more developed or visible organs, removing the smaller ones. Thus, the anguish of uncertainty is settled and the child grows up with a definite gender.

The cases of hermaphroditism or androgyny intersex individuals, as they have started to be called, 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, this affects 1 % of the world's population. In Germany, each year, 400 children are born without a defined sex and in the USA, every day, five surgical sex assignment operations are performed in newborns. These kinds of operations are not harmless, endanger the patient's health, and may damage the genitals or decrease sensitivity. Supporters of this surgery claim that sex-role assignment prevents the baby from suffering future discrimination and relieves the emotional stress experienced by the parents [8].

Intersex conditions include a variety of syndromes in which persons have gross anatomical or physiological aspects of the opposite sex [9]:

> 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.

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.

Turner's 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.

Klinefelter's syndrome, in which an extra X chromosome is present in Klinefelter's syndrome, such that the 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.

5-α-Reductase Deficiency in which, an enzymatic defect prevents the conversion of testosterone to dihydrotestosterone, which 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 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.

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.

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 male because male-to-female genital surgical procedures are far more advanced than female-to-male procedures. This is an inadequate 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 a healthy gender identity. If this cannot be determined with certainty, then treatment can and should wait.

The voices of the intersex community are beginning to rise and there are organizations that look after their rights such as OII (Organisation Intersex International) or the ISNA (Intersex Society of North America) in the USA, and that are against the sexual identity of the newborn belonging to this group being decided in an operating room by the medical team. They advocate that the decision should be taken later by the individual, who must decide whether to have surgery or not. The question then is, and until that time comes, how do we educate that person, as a man, a woman, or 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 label the individual as a stranger or outsider. In the article *How Can You Assign a Gender (Boy or Girl) without surgery?*, the ISNA 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 with which of the two sexes the baby will feel more comfortable. The ISNA is not against the surgery, if the aim is to improve the physical health of the child or help him to meet their physiological functions, for example, making a hole in the penis to urinate when the child does not have one (http://www.isna.org/faq/gender_assignment).

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 possessed, as demonstrated in the case of transsexuals. Transsexuals are becoming more visible, and some are beginning to choose not to undergo operation, regardless of their

sexual orientation, because the genitals, among other things, serve to give pleasure. However, there is still a long way to go before intersex admission begins.

Although it may seem a big step forward for equality, most intersex organizations reject the "third gender" proposed by Germany and Australia because they think it can stigmatize children. An article published on the OII website (http://www.oiiinternational.com) by the philosopher, activist, cultural worker, and magazine publisher Antke Engel, director of the Institute for Queer Theory in Hamburg and Berlin, entitled *About the Violent Construction of Sex as Binary* can give us an idea of its position, seemingly contradictory: to highlight 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.

Now, we will extract some paragraphs from a recent interview by Fiona Sturges (*The Independent*, 15 July 2012) with Antony Hegarty, vocalist and composer from Antony and the Johnsons (http://www.independent.co.uk/news/people/profiles/antony-hegarty-it-takes-nerve-to-get-through-your-sense-of-shame-on-stage-7939045.html):

> "As a transgender person it's shocking to find out how many people in the press are willing to euphemistically or directly try to talk about your anatomy, in a way that you never would another person, in this really degrading way" (. . .) "Sometimes, I have fallen under the illusion that the writer wants to conspire with me to say something that's meaningful. But often, when you're trying to put a point across, they're more interested in framing you as the source of all these eccentric ideas. Actually, my thought with journalists is, why don't we take this opportunity to have a platform to express ourselves and our concerns. A lot of writers are throwing that [opportunity] away".

And he goes on:

> "The systems that ensure the subjugation of the feminine are the same systems that have divorced people from nature and from a sense that nature is our creator. Everyone is so hypnotised by religion that they don't even belong to the Earth. Half of them are waiting for an apocalypse as a climax to their experience. It's that bonkers! We're dealing with a lot of people who are fast asleep" (. . .) "Especially because my situation is ambiguous because I haven't transitioned from male to female. My experience as a transgender person has been to become comfortable expressing my sense of difference within the identity of being trans. For a lot of people, that's not their experience at all. They don't want to be trans, they want to be the opposite sex. I have so much love for those people because their condition is very real. It's almost like a sacred condition. Kids experiencing that are in a sacred crisis. They have all these gifts that boys and girls don't have" (. . .) "But they don't feel it like, of course not. For a lot of kids it feels like an absolute curse and it's very painful. And, in fact, a lot of that experience of alienation is part of the reason that people become so tremendous. It's growing through the pain of that experience".

Next summer, we will go to Madrid to listen again to Antony Hegarty. We think of him as a true visionary, highly aware of the artistic legacy to which he is connected and the political future of which he dreams. We recommend that you read the transcript of this fascinating monologue below, *Future Feminism*, which

included in his/her album *Cut the World* and represents Antony's singular way of seeing and singing the world:

> "I've been thinking all day about the moon. Like, is it an accident that women menstruate once a month and that the moon comes once a month? Are other animals synchronized in this way with the moon? You know, my brother works in mental health and he says that there's a lot more hospitalizations and periods of activity during the full moon. It's a known fact in mental health that people are more excitable around the full moon.
>
> And then, what about the fact that we're made of 70 % water? And then the whole ocean reacts to the full moon, right? In a serious way. Everything's ticking around that moon and if we're 70 % water I must be having some—at least homeopathic—relationship with the changing cycles of the moon.
>
> I can't escape my obsession with the idea that I'm made out of this place, because I was raised to believe that I fundamentally was constituted of spiritual matter that was from somewhere else like Heaven or from a Sky God. Like Gore Vidal talks about Sky Gods and I really picked up that language because in patriarchal monotheisms we all worship a God elsewhere who has a plan for us in a paradise elsewhere: After we die there will be a paradise waiting for us and this place is like a kind of work station where we sort of get all our 'T's crossed and our 'I's dotted before we go off to a real spiritual dimension.
>
> But I'm a witch. I actually de-baptised myself. And what's great about being transgender is you're born with a natural religion. It applies almost across the board no matter what culture or economic group or nation that you're from—you're almost automatically a witch. None of the patriarchal monotheisms will have you. It's very clear that in most of those religions you'd be put to death. In many parts of the world you still are put to death.
>
> Did you hear what the Pope said a couple years ago on Christmas? He said that the marriage of gays and lesbians was as much a threat to the future of our world as the collapse of the rain forests. So, that gives you a sense—just an inkling of his approach to the homosexual question. And that's just the homosexual question. He didn't even address the transgender question. God knows what we've caused. All sorts of wars and strife—all manner of hurt.
>
> I'm worried about that the ecology of the world is collapsing and that I won't have anywhere to be reborn because I actually believe, like, where is any of us going? Where have any of us ever gone? We've come back here in some form. Did you know that whales were once land roaming mammals? And then they crawled back into the ocean trying to find something to eat? And then eventually they got rid of their hands and legs.
>
> I've been searching and searching for that little bit of my constitution that isn't of this place and I still haven't found it. Every atom of me, every element of me seems to resonate, seems to reflect the great world around me. So, I've come to the conclusion that this is God's best idea—that this manifest world is the frontier of his dream, or her dream in my opinion. So, that's just my point of view from where I can start to establish a new way to value the world that I'm a part of. Cause if I'm not heading off to paradise elsewhere when I die then I have more of a vested interest in observing a sustainable relationship with this place.
>
> It's a very indigenous idea that the Earth is a female, that the Earth menstruates, that the water of the world is the blood of a woman's body and that's what we crawled out of just in the same way that we crawled out of our mother's wombs. It's the most basic idea; any child could come up with it and it's so obvious. And yet we've been straining for these Sky Gods for a couple thousand years now. And I remember praying to God when I was like six years old. I was raised Catholic and I prayed really hard, and I waited and waited to hear that summons. I think in a funny way, a lot of my music I'm listening for that response still.

> I've heard two rumors about the Dalai Lama. One is that he said he wasn't going to be reincarnating because the world was going to be too dangerous and that's probably just a rumor. But then I heard a far more interesting new rumor, which is that the Dalai Lama said the next time he incarnates it will be as a girl, which will be the first in the history of Buddhism. But I think that that is the most revolutionary thing he could possibly do and the most helpful spiritual gesture that he could make. And I'm very interested in the feminization of the deities. I'm very interested in Jesus as a girl. I'm extremely interested in Allah as a woman. And contrary to popular opinion, it's not bad to say that—you can say it. I mean you might get a little letter in the mail but I'm probably due a hundred letters in the mail already, so . . . It's a wonderful day to die.
>
> But nonetheless, Allah as a woman is a critical threshold and Buddha as a mother is another one because I truly believe that unless we move into feminine systems of governance we don't have a chance on this planet. And there's no one else that can lead the masses to do that except for, like, the major religious institutions. And I'm someone who's looking for a reason to hope, and for me hope looks like feminine systems of governance being instated in, like, the major religious institutions and throughout corporate and civil life. And it might sound far-fetched, but if you look at your own beliefs, just imagine how quickly you've accepted the idea that the ocean is rising and the ecology of our world is collapsing. We can actually imagine that more readily than we can imagine a switch from patriarchal to matriarchal systems of governance—a subtle shift in the way our society works.
>
> It's obviously a very broad statement—and of course Sarah Palin exists so don't bother me with that. But, Sarah Palin is working very much within patriarchal systems. I just love that moment when Benazir Bhutto was being interviewed and she just talked about motherhood and daughters and how she wished she'd had done more for the girls of her country. For as problematic as she was, she was an exciting forerunner".

Isn't it impressive? We think definitely it is.

Finally, we will dedicate some words to the punk-rock band called Against Me!, originally formed in Gainesville, Florida, in 1977, by the singer and guitarist Laura Jane Grace, who publicly came out transgender, beginning a transition toward living as a woman and dropping the name Tom Gabel. The band finished recording their sixth studio album, *Transgender Dysphoria Blues*, during the summer of 2013, and released it on 21 January 2014. It contains 11 songs: *Transgender Dysphoria Blues*; *True Trans Soul Rebel*; *Unconditional Love*; *Brinking with the Jocks*; *Osama Bin Laden as the Crucified Christ*; *Fuck My Life 666*; *Dead Friend*; *Two Coffins*; and *Paralytic States*; *Black Me Out*.

Let's take the track 2 and listen to *True Trans Soul Rebel*:

> "All dressed up and nowhere to go/You're walking the streets all alone/Another night to wish that you could forget/Making yourself up as you go along/Who's gonna take you home tonight?/Who's gonna take you home?/Does god bless your transsexual heart?/True trans soul rebel/Yet to be born, you're already dead/You sleep with a gun beside you in bed/Follow it through to the obvious end/Slit your veins wide open, you bleed it out/Who's gonna take you home tonight?/Who's gonna take you home?/Does god bless your transsexual heart?/True trans soul rebel/You should have been a mother/You should have been a wife/You should have been gone from here years ago/You should be living a different life/Who's gonna take you home tonight?/Who's gonna take you home?/Does god bless your transsexual heart?/True trans soul rebel".

Do you know? Some days it is so difficult for us to not feel ourselves, like menstruating moons, men and women, just like people at last. These are the real days, the good ones.

12.2 Some Definitions

The area of sex and gender is highly controversial and has led to a proliferation of terms whose meanings vary over time and within and between disciplines. An additional source of confusion is that in English "sex" connotes both male and female sexuality.

As we understand sex and sexual refer to the biological indicators of male and female (understood in the context of reproductive capacity), such as in sex chromosomes, gonads, sex hormones, and non-ambiguous internal and external genitalia [1].

Disorders of sex development denote conditions of inborn somatic deviations of the reproductive tract from the norm and/or discrepancies among the biological indicators of male and female.

The need to introduce the term gender arose with the realization that for individuals with conflicting or ambiguous biological indicators of sex (i.e., intersex), the lived role in society and/or the identification as male or female could not be uniformly associated with or predicted from the biological indicators and, later, that some individuals develop an identity as a female or male at variance with their uniform set of classical biological indicators. Thus, gender is used to denote the public (and usually legally recognized) lived role as boy or girl, man or woman, but, in contrast to certain social constructionists theories, biological factors are seen to be contributing, in interaction with social and psychological factors, to gender development.

Terminology in the area of health care for transsexual, transgender, and gender-nonconforming people is rapidly evolving. New terms are being introduced, and the definitions of existing terms are changing. Thus, there is often misunderstanding, debate, or disagreement about language in this field. Many terms used in relation to this population are not ideal. For example, the terms transsexual and transvestite—and, some would argue, the more recent term transgender—have been applied to people in an objectifying fashion. Yet such terms have been more or less adopted by many people who are making their best effort to make themselves understood. By continuing to use these terms, World Professional Association for Transgender Health (WPATH) proposals are only to ensure that concepts and processes are comprehensible, in order to facilitate the delivery of quality health care to transsexual, transgender, and gender-nonconforming people. The WPATH remains open to new terminology to further illuminate the experience of members of this diverse population and lead to improvements in health care access and delivery [7].

Sex is assigned at birth as male or female, usually based on the appearance of the external genitalia. When the external genitalia are ambiguous, other components of sex (internal genitalia, chromosomal and hormonal sex) are considered in order to

assign sex. For most people, gender identity and expression are consistent with their sex assigned at birth. For transsexual, transgender, and gender-nonconforming individuals, gender identity or expression differs from their sex assigned at birth.

Gender assignment refers to the initial assignment as male or female. This occurs usually at birth and, thereby, yields the "natal gender."

Gender-atypical refers to somatic features or behaviors that are not typical (in a statistical sense) of individuals with the same assigned gender in a given society and historical era. For behavior, gender-nonconforming is an alternative descriptive term.

Sex reassignment surgery (gender affirmation surgery) refers to surgery to change primary and/or secondary sex characteristics to affirm a person's gender identity. Sex reassignment surgery can be an important part of medically necessary treatment to alleviate GD. Moreover, cross-sex hormone treatment denotes the use of feminizing hormones in an individual assigned male at birth based on traditional biological indicators or the use of masculinizing hormones in an individual assigned female at birth.

Gender reassignment denotes an official (and usually legal) change of gender.

Gender identity refers to the sense one has of being male or being female, which corresponds, normally, to the person's anatomical sex. The text revision of the fourth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR) defines GID as a group whose common feature is a strong, persistent preference for living as a person of the other sex. The affective component of GID is gender dysphoria (discontent with one's designated birth sex and a desire to have the body of the other sex and to be regarded socially as a person of the other sex). GID in adults was referred to in early versions of the DSM as transsexualism. In DSM-IV-TR no distinction is made for the overriding diagnostic term GID as a function of age. In children, it can manifest as statements of wanting to be the other sex and as a broad range of sex-typed behaviors conventionally shown by children of the other sex. Gender identity crystallizes in most persons by the age of 2 or 3 years [9].

Transsexual is an adjective often applied by the medical profession to describe individuals who seek to change or who have changed their primary and/or secondary sex characteristics through femininizing or masculinizing medical interventions (hormones and/or surgery), typically accompanied by a permanent change in gender role in order to live entirely as permanent, full-time members of the gender other than that they were assigned to at birth. The term was used in the title of a 1949 article by D. O. Caldwell, *Psychopathia transexualis*, but it was popularized by Dr Harry Benjamin in the 1950s and became widely known as a result of the spectacular publicity given to the 1952 surgical sex change of Christine Jorgensen, a former photographer and film editor from the Bronx whose genital conversion operation made headlines around the world. The term transsexual was introduced to draw a distinction between those transvestites who sought medical interventions to change their physical bodies (that is, their sex) and those who merely wanted to change their gendered clothing (the vestments at the root of transvestism). Historically, the practice of transsexuality has involved surgical modifications of the

reproductive organs and chest, hormone use to change secondary sex characteristics, and permanent removal of facial and body hair for individuals moving from male embodiment toward social womanhood. These medical procedures have then been the basis for legal or bureaucratic changes in gender designation. More recently, people who do not consider themselves to be transsexual are increasingly continuing to use the same body modification practices, and they may do so without trying to change their legal gender. For example, a person born with a female body may use testosterone or have mastectomies, but still live legally or socially as a woman with traditionally masculine attributes. The result of such practices is another layer of human-generated complexity on top of already complicated biological sex differences and cultural gender categories. The breakdown in familiar distinctions between who is a transsexual and who is not, and who (based on diagnosis with GID) is considered an acceptable recipient of medicalized body modification procedures, is another hotly debated topìc. The rapid evolution of new motives for changing one's embodiement (for example, a woman with a known genetic risk for breast cancer opting for a preventive mastectomy, or a professional athlete taking performance-enhancing drugs, neither of whom may consider themselves transgender, but who do some of the same things to their bodies that transgender people do, coupled with new biomedical possibilities for doing so, is part of what drives the rapid developing terminology in the transgender field [10].

Transition is the period of time when individuals change from the gender role associated with their sex assigned at birth to a different one. For many people, this involves learning how to live socially as a person of that gender. For others this means finding a gender role and expression that is most comfortable for them. Transition may or may not include feminization or masculinization of the body through hormones or other medical procedures. The nature and duration of transition is variable and individualized.

Gender dysphoria (GD) as a general descriptive term used in the APA's new publication, the DSM-5, refers to an individual's affective/cognitive discontent with the assigned gender, but is more specifically defined when used as a diagnostic (clinical) category. In this case, it refers to the distress that may accompany the incongruence between one's experienced or expressed gender and one's assigned gender. Although not all individuals will experience distress as a result of such incongruence, many are distressed if the desired physical interventions by means of hormones and/or surgery are not available. The current term is more descriptive than the previous DSM-IV term GID, and focuses on dysphoria as the clinical problem, not identity per se [1].

Gender-nonconforming is another adjective used to describe individuals whose gender identity, role, or expression differs from what is normative for their assigned sex in a given culture and historical period.

Gender role or expression appeals to the characteristics in personality, appearance, and behavior that in a given culture and historical period are designated as masculine or feminine (that is, more typical of the male or female social role). While most individuals present socially in clearly masculine or feminine gender roles, some people present in an alternative gender role such as genderqueer or

specifically transgender. All people tend to incorporate both masculine and feminine characteristics in their gender expression in varying ways and to varying degrees.

Genderqueer is the identity label that may be used by individuals whose gender identity and/or role does not conform to a binary understanding of gender as limited to the categories of man or woman, male or female.

Internalized transphobia implies some kind of discomfort with one's own transgender feelings or identity as a result of internalizing society's normative gender expectations.

Transvestite is a word coined in 1910 by the German sexologist Magnus Hirscheld [10]. He used it to describe the erotic urge for disguise that it shows, as he understood the motivation that led some people to wear clothing generally associated with a social gender other than that assigned to them at birth. For Hirchfield, "transvestites" were one of many different types of sexual intermediaries, including homosexuals and hermaphrodites, who occupied a spectrum between "pure male" and "pure female." Initially, this term was used in much the same way that transgender is used now, to convey the sense of a wide range of gender variant identities and behaviors. During the course of the last century, however, to the extent that it has not fallen entirely out of favor, it refers primarily to people who wear gender atypical clothing, but do not engage in other kinds of body modification. It usually carries with it the association of cross-dressing for erotic pleasure. Transvestism is also called cross-dressing.

Transgender implies movement away from an initially assigned gender position. It generally refers to any and all kinds of variation from gender norms and expectations. Gender varies through the place and time, defining transgender in this way inevitably brings up the related questions of which norms and expectations? And whose norms and expectations? What counts as transgender varies as much as gender itself, and it always depends on the historical and cultural context. The gender identity of transgender people differs to varying degrees from the sex they were assigned at birth [10].

Disorders of sex development are congenital conditions in which the development of chromosomal, gonadal, or anatomical sex is atypical. Some people strongly object to the "disorder" label and instead view these conditions as a matter of diversity, preferring the terms "intersex" and "intersexuality."

12.3 Epidemiology

Formal epidemiological studies on the incidence and prevalence of transsexualism specifically or transgender and gender-nonconforming identities in general have not been conducted, and efforts to achieve realistic estimates are fraught with enormous difficulties [11].

Even if epidemiological studies established that a similar proportion of transsexual, transgender, or gender-nonconforming people existed all over the world, it is likely that cultural differences from one country to another would alter both the

behavioral expressions of different gender identities and the extent to which GD—distinct from one's gender identity—is actually occurring in a population. While in most countries, crossing normative gender boundaries generates moral censure rather than compassion, there are examples in certain cultures of gender-nonconforming behaviors (i.e., in spiritual leaders) that are less stigmatized and even revered [7].

For various reasons, researchers who have studied the incidence and prevalence have tended to focus on the most easily counted subgroup of gender-nonconforming individuals: transsexual individuals who experience GD and who present for gender-transition-related care at specialist gender clinics [12].

De Cuypere and colleagues reviewed the specific literature and concluded that the prevalence figures reported range from 1:11,900 to 1:45,000 for male-to-female individuals (MtF) and 1:30,400 to 1:200,000 for female-to-male (FtM) individuals [13].

Nevertheless, the prevalence may be much higher depending on the methodology used in the research. Direct comparisons across studies are near impossible, as each differed in their data collection methods and in their criteria for documenting a person as transsexual (i.e. whether or not a person had undergone genital reconstruction, versus whether they had initiated hormone therapy, versus whether they had come to the clinic seeking medically supervised transition services). The trend appears to be toward higher prevalence rates in the more recent studies, possibly indicating increasing numbers of people seeking clinical care [14].

The numbers yielded by studies such as these can be considered minimum estimates at best. The published figures are mostly derived from clinics where patients met criteria for severe GD and had access to health care at those clinics. These estimates do not take into account that treatments offered in a particular clinical setting may not be perceived as affordable, useful, or acceptable by all self-identified gender dysphoric individuals in a given area. By counting only those people who present at clinics for a specific type of treatment, an unspecified number of gender dysphoric individuals are overlooked.

Other clinical observations (not yet firmly supported by any systematic study) support the likelihood of a higher prevalence of GD [7]:

> Previously unrecognized GD is occasionally diagnosed when patients are seen with anxiety, depression, conduct disorder, substance abuse, dissociative identity disorders, borderline personality disorder, sexual disorders, and disorders of sex development.
>
> Some cross-dressers, drag queens/kings or female/male impersonators, and gay and lesbian individuals may be experiencing GD.
>
> The intensity of some people's GD fluctuates below and above a clinical threshold.
>
> Gender nonconformity among FtM individuals tends to be relatively invisible in many cultures, particularly to western health professionals and researchers who have conducted most of the studies on which the current estimates of prevalence and incidence are based.

Overall, the existing data should be considered a starting point, and health care would benefit from more rigorous epidemiological study in different locations worldwide.

According to the APA's new DSM-5, for natal adult males the prevalence of GD ranges from 0.005 % to 0.014 %, and for natal females from 0.002 % to 0.003 %. Since not all adults seeking hormone treatment and surgical reassignment attend specialty clinics, these rates are likely modest underestimates. Sex differences in the rate of referrals to specialty clinics vary by age group. In children, sex ratios of natal boys to girls range from 2:1 to 4.5:1. In adolescents, the sex ratio is close to parity. In adults, the sex ratio favors natal males, with ratios ranging from 1:1 to 6.1:1. In two countries the sex ratio appears to favor natal females (Japan 2.2:1, Poland 3.4:1) [1].

Most children with GD are referred for clinical evaluation in the early grade school years. Parents, however, typically report that the cross-gender behaviors were apparent before 3 years of age. Among a sample of boys younger than age 12 years referred for a range of clinical problems, the reported desire to be the opposite sex was 10 %. For clinically referred girls younger than age 12 years, the reported desire to be the opposite sex was 5 %. The sex ratio of referred children is four to five boys for each girl [9].

The best estimate of GD or transsexualism in adults comes from Europe, with a prevalence of 1 in 30,000 men and 1 in 100,000 women. Most clinical centers report a sex ratio of three to five male patients for each female patient. Many adults with GD may well have qualified for GD in childhood. Most adults with GD report having felt different from other children of the same sex, although, in retrospect, many could not identify the source of that difference. Many report feeling extensively cross-gender identified from the earliest years, with the cross-gender identification becoming more profound in adolescence and young adulthood [9].

12.4 Etiopathogenesis

As von Goethe points out "there's nothing more frightful than ignorance in action."

The development and maintenance of GD is held to be a multifactorial pathological process, in which individual psychological factors exert their effects in concert with biological, familial, and sociocultural ones.

It would be wrong to imagine that patients with GD constitute a homogeneous group with a uniform pathogenesis. Different theoretical conceptions imply different—complementary, not necessarily contradictory—notions of the possible causes of GD. In view of the still unsatisfactory state of the data, any generalizations should be made with caution.

12.4.1 Biological Factors

For mammals, the resting state of tissue is initially female (see the corresponding chapter of this book). As the fetus develops, a male is produced only if androgen (coded for by a region of the Y chromosome, which is responsible for testicular development) is introduced. Without testes and androgen, female external genitalia

develop. Thus, maleness and masculinity depend on fetal and perinatal androgens. The sexual behavior of animals lower on the evolutionary tree is governed by sex steroids, but this effect diminishes as one ascends the evolutionary tree. Sex steroids influence the expression of sexual behavior in mature men and women. That is, testosterone can increase libido and aggressiveness in women, and estrogen can decrease libido and aggressiveness in men. However, masculinity, femininity, and gender identity more frequently result from postnatal life events than from prenatal hormonal organization [9].

The same principle of masculinization or feminization has been applied to the brain. Testosterone affects brain neurons that contribute to the masculinization of the brain in such areas as the hypothalamus. Whether testosterone contributes to so-called masculine or feminine behavioral patterns in gender identity disorders remains a controversial issue [9].

Neurobiological genetic research has not yet convincingly shown any predominant role for genetic or hormonal factors in the etiology of GD. Some studies' findings were originally thought to suggest a possible effect of sex steroids in utero and an inadequate masculinization or defeminization of hypothalamic nuclei ("gender role centers") because of pathologically altered maternal hormone levels. Nevertheless, these findings are now viewed more critically [15].

Some studies have also supported the hypothesis of a strong heritable component to GID, in as much as gender identity may be much less a matter of choice and much more a matter of biology. But once again, these data are as yet inconclusive [16].

In addition, neuroanatomical findings in the dichotomous brain nuclei of transsexual patients may provide further evidence for a biological component in the complex etiology of GD. Some studies have also proposed not only that the bed nucleus of the stria terminalis (BSTc) is female in size and neuron number in male-to-female transsexual people, but also that the hypothalamic uncinate nucleus, which is composed of two subnuclei; namely, the interstitial nucleus of the anterior hypothalamus (INAH) 3 and 4, is altered in post-mortem brain material obtained from GD subjects: the INAH3 volume and number of neurons of male-to-female transsexual people is similar to that of control females; the female-to-male transsexual subjects have an INAH3 volume and number of neurons within the male control range, even though treatment with testosterone had been stopped 3 years before death; the castrated men have an INAH3 volume and neuron number that was intermediate between males and females; and there is no difference in INAH3 between pre-and post-menopausal women, either in the volume or in the number of neurons, indicating that the feminization of the INAH3 of male-to-female transsexuals is not due to estrogen treatment. The authors conclude that the sex reversal of the INAH3 in transsexual people is at least partly a marker of an early atypical sexual differentiation of the brain and that the changes in INAH3 and the BSTc may belong to a complex network that may be structurally and functionally related to gender identity [17].

Cerebral responses to putative pheromones and objects of sexual attraction were recently found to differ between homo- and heterosexual subjects. Although this

observation may merely mirror perceptional differences, it raises the intriguing question as to whether certain sexually dimorphic features in the brain may differ between individuals of the same sex but different sexual orientation. In another study the authors addressed this issue by studying hemispheric asymmetry and functional connectivity, two parameters that in previous publications have shown specific sex differences. Ninety subjects (25 heterosexual men [HeM] and women [HeW], and 20 homosexual men [HoM] and women [HoW]) were investigated with magnetic resonance volumetry of the cerebral and cerebellar hemispheres. Fifty of them also participated in PET measurements of cerebral blood flow, used for analyses of functional connections from the right and left amygdalae. HeM and HoW showed a rightward cerebral asymmetry, whereas volumes of the cerebral hemispheres were symmetrical in HoM and HeW. No cerebellar asymmetries were found. Homosexual subjects also showed sex-atypical amygdala connections. In HoM, as in HeW, the connections were more widespread from the left amygdala; in HoW and HeM, on the other hand, from the right amygdala. Furthermore, in HoM and HeW the connections were primarily displayed with the contralateral amygdala and the anterior cingulate, in HeM and HoW with the caudate, putamen, and the prefrontal cortex. The present studies shows sex-atypical cerebral asymmetry and functional connections in homosexual subjects. The results cannot be primarily ascribed to learned effects, and they suggest a linkage to neurobiological entities [18, 19].

Savic and Lindström describe sex-atypical cerebral asymmetry and functional connections in homosexual subjects that cannot be primarily linked to reproduction and suggest a link between sexual orientation and neurobiological entities. Further research is needed on the putative influence of testosterone on the same parameters (i.e., in individuals with complete androgen-insensitivity syndrome). Neurobiological research related to sexual orientation in humans is only just gathering momentum, but the evidence already shows that humans have a vast array of brain differences, not only in relation to gender, but also in relation to sexual orientation [20].

Studies of GD in patients with various types of intersex syndrome (i.e., complete versus partial androgen receptor defects) have led to the formulation of a biological hypothesis for the etiology of GD, in which these are caused by hormone resistance restricted to the brain. Contrary to earlier assumptions, gender identity cannot be changed by external influences alone, i.e., attempts at so-called "re-education," even when these attempts are begun as early as the first year of life. This implies an early, somatic determination of gender identity. Moreover, because bodily and genital sensations exert a major effect on psychosexual and gender-identity development, it must be assumed that the overall process involves an interaction of biological and psychosocial factors [21].

Etiological and pathological influences should thus be sought in both areas, taking into account some key issues such as the geometric structure of the brain fiber pathways or the hierarchical genetic organization of the human cortical surface area [22, 23].

12.4.2 Psychosocial Factors

Children usually develop a gender identity consonant with their sex of rearing (also known as "assigned sex"). The formation of gender identity is influenced by the interaction of children's temperament and parents' qualities and attitudes. Culturally acceptable gender roles exist: boys are not expected to be effeminate, and girls are not expected to be masculine. There are boys' games (e.g., cops and robbers) and girls' toys (e.g., dolls and dollhouses). These roles are learned, although some investigators believe that some boys are temperamentally delicate and sensitive and that some girls are aggressive and energized—traits that are stereotypically known in today's culture as feminine and masculine respectively. However, greater tolerance of mild cross-gender activity in children has developed in the past few decades [9].

The quality of the mother–child relationship in the first years of life is paramount in establishing gender identity. During this period, mothers normally facilitate their children's awareness of, and pride in, their gender: children are valued as little boys and girls, but devaluing, hostile mothering can result in gender problems. At the same time, the separation–individuation process is unfolding. When gender problems become associated with separation–individuation problems, the result can be the use of sexuality to remain in relationships characterized by shifts between a desperate infantile closeness and a hostile, devaluing distance.

Some children are given the message that they would be more valued if they adopted the gender identity of the opposite sex. Rejected or abused children may act on such a belief. Gender identity problems can also be triggered by a mother's death, extended absence, or depression, to which a young boy may react by totally identifying with her—that is, by becoming a mother to replace her.

The father's role is also important in the early years, and his presence normally helps the separation–individuation process. Without a father, mother and child may remain overly close. For a girl, the father is normally the prototype of future love objects; for a boy, the father is a model for male identification [9].

Multiple publications have concerned a possible traumatic etiology of gender identity disorders and an overlap of the psychopathological findings in GID with those of borderline personality disorder, although there is some controversy on the latter point. A profound disturbance of the mother–child relationship can often be empirically demonstrated and is postulated to be a causative factor. The desire to belong to the opposite sex is held to be a compensatory pattern of response to trauma. In boys, it is said to represent an attempt to repair the defective relationship with the physically or emotionally absent primary attachment figure through fantasy; the boy tries to imitate his missing mother as the result of confusion between the two concepts of having a mother and being one. In girls, the postulated motivation for gender (role) switching is the child's need to protect herself and her mother from a violent father by acquiring masculine strength for herself [21, 24].

Other authors, in line with psychoanalytical theory, do not attribute the desire to belong to the opposite sex to any prior trauma. Rather, they postulate the formation

of a classic neurotic compromise, in which the child symbolically achieves a symbiotic fusion with the beloved parent by switching genders [25].

Excessive identification with the opposite sex is said to help affected boys cope with fears of loss of maternal attention, while affected girls are said to identify with their fathers in order to compensate for a relationship with their mothers that they perceive to be deficient [26–28].

From the perspective of developmental psychology, psychopathology, and psychiatry, such maladaptive reactions can be seen as failed attempts to fulfill particular developmental tasks: separation from parents, establishment of an individual identity, and attainment of sexual maturity. Some adolescents, meanwhile, seem to view a gender switch as a universal problem-solving strategy when confronted by other, totally different developmental tasks, bearing no relation to the establishment of sexual identity, that they perceive as insurmountable. It seems clear that the manner of psychological processing of conflicts and traumatic experiences can be expected to vary greatly from one child or adolescent to another, depending to a major extent on temperamental factors and on the developmental stage that the individual's cognitive, emotional, and social skills have reached [21].

Learning theory and concepts derived from it tend to favor a causative model in which the primary attachment figure(s) is (are) postulated to exert an exogenous-reinforcing, active-manipulative effect on the development of features typifying the opposite sex. This explanatory approach ascribes primary importance to a desire on the parent's part for the child to be of the opposite sex. A high rate of psychological abnormalities in the parents of children with GID has been reported in more than one study [29, 30].

Schema-focused theory was developed for the treatment of personality disorders and has been applied to many different forms of psychopathology, but there has been little published research investigating the relevance of this theory for GD. A recent study concludes that the psychological evaluation of individuals with GD can be effective in its prevention, diagnosis, and treatment. It may be a relationship between defense mechanisms and early maladaptive schemas in individuals with GD, based on a positive significant relationship between the disconnection and rejection domain and early maladaptive schemas and inmature style of the defense mechanisms, and in a negative significant relationship between them and mature style; there is no statistically significant relationship between them and neurotic style [30].

It is essential, therefore, to explore thoroughly the psychopathology of the child's attachment figures and their "sexual world view," including any sexually traumatizing experiences they may have undergone, in order to discover any potential "transsexualogenic influences." The same holds for overarching sociocultural variables. Presentations currently appearing in the mass media of ever younger patients describing their treatment in euphoric terms are a cause for concern. Two further reasons for the rising demand for sex changes among minors would appear to be the "feasibility delusion"—the notion that modern medicine can effect a sex change with no problem at all—and a tendency to view the choice of one's own sex as a type of fundamental right.

Finally, in a recent work, Ramachandran working on the conscious self points out that it seems to arise from a small set of brain areas connected in a surprisingly powerful network. This author also includes a curious aspect of the as yet unexplained apotemnophilia with his model: the sexual orientation tendencies associated with some of these individuals are directed toward intimacy with another amputee subject. Perhaps the sexual esthetic preference for certain body morphology is dictated in part by the shape of the body image displayed in the right sensorial parietal lobe (SPL) and/or in the insular cortex. Thus, there may be a genetically specified mechanism, that allows the template body image (in SPL) of a person to be transcribed in their limbic circuits, thus determining the visual esthetic preference [31]. Moreover, there are certain similarities among somatoparaphrenia, anosognosia, and the Capgras delusion. And in a riskier conceptual leap it can also be assumed that the conscious Self has sex. As with somatoparaphrenia, certain distortions or disparities in the SPL may partly explain the symptoms of transsexuals, in which the discrepancy between sexual body image internally specified, including details of the sexual anatomy, and external anatomy causes a profound malaise, and a yearning to reduce the disparity.

We ask the reader not to be impatient in this regard, as it is a hypothesis, and as such, it must be subjected to verification and validation processes. But it is still an interesting proposal from an epistemological point of view.

12.5 GD: Clinical Features, Diagnostic Criteria, Comorbidity, and Differential Diagnosis

Individuals with GD have a marked incongruence between the gender they have been assigned to (usually at birth, referred to as the natal gender) and their experienced/expressed gender. This discrepancy is the core component of the diagnosis. There must be also evidence of distress about this incongruence. Experienced gender may include alternative gender identities beyond binary stereotypes. Consequently, the distress is not limited to a desire to simply be of the other gender, but may include a desire to be of an alternative gender, provided that it differs from the individual's assigned gender.

The main diagnostic criteria of DSM-5 [1] are shown in Tables 12.1 and 12.2.

At the extreme of GID in children are boys who, by the standards of their cultures, are as feminine as the most feminine of girls, and girls who are as masculine as the most masculine of boys. No sharp line can be drawn on the continuum of GID between children who should receive a formal diagnosis and those who should not. Girls with the disorder regularly have male companions and an avid interest in sports and rough-and-tumble play. They show no interest in dolls or playing house (unless they play the father or another male role). They may refuse to urinate in a sitting position, claim that they have or will grow a penis and do not want to grow breasts or to menstruate, and assert that they will grow up to become a man (not merely to play a man's role).

Table 12.1 Gender dysphoria criteria in children according to the DSM-5

DSM-5 gender dysphoria in children. 302.6 (F64.2)	
A.	A marked incongruence between one's experienced/expressed gender and assigned gender, of at least 6 months' duration, as manifested by at least six of the following (one of which must be Criterion A1):
1.	A strong desire to be of the other gender or an insistence that one is the other gender (or some alternative gender different from one's assigned gender)
2.	In boys (assigned gender) a strong preference for cross-dressing or stimulating female attire; or in girls (assigned gender) a strong preference for wearing only typical masculine clothing and a strong resistance to the wearing of typical feminine clothing
3.	A strong preference for cross-gender roles in make-believe play or fantasy play
4.	A strong preference for the toys, games, or activities stereotypically used or engaged in by the other gender
5.	A strong preference for playmates of the other gender
6.	In boys (assigned gender), a strong rejection of typically masculine toys, games, and activities
7.	A strong dislike of one's sexual anatomy
8.	A strong desire for the primary and/or secondary sex characteristics than match one's experienced gender
B.	The condition is associated with clinically significant distress or impairment in social, school, or other important areas of functioning
Specify if:	With a disorder of sex development (e.g., a congenital adrenogenital disorder such as 255.2 [E25.0] congenital adrenal hyperplasia or 259.50 [E34.50] androgen insensitivity syndrome
Coding note:	Code the disorder of sex development as well as gender dysphoria

Boys with the disorder are usually preoccupied with stereotypically female activities. They may have a preference for dressing in girls' or women's clothes or may improvise such items from available material when the genuine articles are not available (the cross-dressing typically does not cause sexual excitement, as in transvestic fetishism). They often have a compelling desire to participate in the games and pastimes of girls. Female dolls are often their favorite toys, and girls are regularly their preferred playmates. When playing house, they take a girl's role. Their gestures and actions are often judged to be feminine, and they are usually subjected to male peer group teasing and rejection, a phenomenon that rarely occurs with boyish girls until adolescence. Boys with the disorder may assert that they will grow up to become a woman (not merely in role). They may claim that their penis or testes are disgusting or will disappear or that it would be better not to have a penis or testes. Some children refuse to attend school because of teasing or the pressure to dress in attire stereotypical of their assigned sex. Most children deny being disturbed by the disorder, except that it brings them into conflict with the expectations of their families or peers.

Children with a gender identity disorder must be distinguished from other gender-atypical children. For girls, tomboys without gender identity disorder prefer

Table 12.2 Gender dysphoria criteria according to the DSM-5 in adolescents and adults

DSM-5 gender dysphoria in adolescents and adults. 302.85 (F64.1)	
A.	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:
1.	A marked incongruence between one's experienced/expressed gender and primary and/or secondary sex characteristics (or in young adolescents, the anticipated secondary sex characterisitics)
2.	A strong desire to be rid of one's primary 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)
3.	A strong desire for the primary and/or secondary sex characteristics of the other gender
4.	A strong desire to be of the other gender (or some alternative gender different from one's assigned gender)
5.	A strong desire to be treated as the other gender (or some alternative gender different from one's assigned gender)
6.	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)
B.	The condition is associated with clinically significant distress or impairment in social, school, or other important areas of functioning
Specify if:	With a disorder of sex development (e.g., a congenital adrenogenital disorder such as 255.2 [E25.0] congenital adrenal hyperplasis or 259.50 [E34.50] androgen insensitivity syndrome
Coding note:	Code the disorder of sex development well as gender dysphoria
Specify if:	*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—namely regular cross-sex hormone treatment or gender reassignment surgery confirming the desired gender (e.g., penectomy, vaginoplasty in a natal male; mastectomy or phalloplasty in a natal female)

functional and gender-neutral clothing. By contrast, gender identity-disordered girls adamantly refuse to wear girls' clothes and reject gender-neutral clothes. They make repeated statements of being or wanting to be a boy and wanting to grow up to be a man, along with repeated cross-sex fantasy play, so that, in mother–father games or other games imitating characters from the mass media, they are male. This accompanies a marked aversion to traditionally feminine activities.

For boys, the differential diagnosis must distinguish those who do not conform to traditional masculine sex-typed expectations, but do not show extensive cross-gender identification and are not discontent with being male. It is not uncommon for boys to reject rough-and-tumble play or sports and to prefer non-athletic activities or occasionally to role play as a girl, to play with a doll, or to dress up in girls' or women's costumes. Such boys do not necessarily have a GID. Boys who do have a GID state a preference for being a girl and for growing up to become a woman,

along with repeated cross-sex fantasy play, as in mother–father games, a strong preference for traditionally female-type activities, cross-dressing, and a female peer group.

Because the diagnosis of GID excludes children with anatomical intersex, a medical history needs to be taken, with the focus on any suggestion of hermaphroditism in the child. With doubt, referral to a pediatric endocrinologist is indicated [9].

Similar signs and symptoms are seen in adolescents and adults. Adolescents and adults with the disorder manifest a stated desire to be the other sex; they frequently try to pass as a member of the other sex, and they desire to live or to be treated as the other sex. In addition, they find their genitals repugnant, and they desire to acquire the sex characteristics of the opposite sex. This desire may override all other wishes. They may believe that they were born the wrong sex and may make such characteristic statements as "I feel that I'm a woman trapped in a male body" or vice versa.

Adolescents and adults frequently request medical or surgical procedures to alter their physical appearance. Although the term transsexual is not used in DSM-5 [1], many clinicians find the term useful and will probably continue to use it. In addition, transsexualism appears in the tenth revision of International Statistical Classification of Diseases and Related Health Problems (ICD-10) [32], and such persons refer to themselves as transsexuals.

Most retrospective studies of transsexuals report gender identity problems during childhood, but prospective studies of children with GID indicate that few become transsexuals and want to change their sex. The disorder is much more common in men (1 per 30,000) than in women (1 per 100,000) [9].

Men take estrogen to create breasts and other feminine contours, have electrolysis to remove their male hair, and have surgery to remove the testes and the penis and to create an artificial vagina. Women bind their breasts or have a double mastectomy, a hysterectomy, and an oophorectomy. They take testosterone to build up muscle mass and deepen the voice and have surgery in which an artificial phallus is created. These procedures may make a person indistinguishable from members of the other sex.

Gender identity disorder can be associated with other diagnoses. Although some patients with GID have a history of major psychosis, including schizophrenia or major affective disorder, most do not. When a diagnosis of GID is made, as well as another DSM Axis I diagnosis, it is necessary to consider whether the diagnoses are distinct. A variety of Axis II personality disorders may be found in patients with gender identity disorder, particularly borderline personality, but none is specific. A proportion of nonhomosexual men with GID report a history of erotic arousal in association with cross-dressing, and some would still qualify for a concurrent diagnosis of fetishistic transvestism. Some are more sexually aroused by imagining themselves with a female body or by seeing themselves cross-dressed in a mirror (autogynephilia) than by items of women's clothing per se.

12.5.1 Differential Diagnosis

Nonconformity to Gender Roles. Gender dysphoria should be distinguished from simple nonconformity to stereotypical gender role behavior by the strong desire to be of another gender than the assigned one and by the extent and pervasiveness of gender-variant activities and interests. The diagnosis is not meant to merely describe noncomformity to stereotypical gender role behavior. Given the increased openness of atypical gender expressions by individuals across the entire range of the transgender spectrum, it is important for the clinical diagnosis to be limited to those individuals whose distress and impairment meet the specified criteria.

Transvestic Disorder. The DSM-IV-TR lists cross-dressing—dressing in clothes of the opposite sex—as a GID if it is transient and related to stress. If the disorder is not stress-related, persons who cross-dress are classified as having transvestic fetishism, which is described as a paraphilia in the DSM-IV-TR. An essential feature of transvestic fetishism is that it produces sexual excitement. Stress-related cross-dressing may sometimes produce sexual excitement, but it also reduces a patient's tension and anxiety. Patients may harbor fantasies of cross-dressing but act them out only under stress. Male adult cross-dressers may have the fantasy that they are female, in whole or in part.

Cross-dressing is commonly known as transvestism and the cross-dresser as a transvestite. Cross-dressing phenomena range from the occasional solitary wearing of clothes of the other sex to extensive feminine identification in men and masculine identification in women, with involvement in a transvestic subculture. More than one article of clothing of the other sex is involved, and a person may dress entirely as a member of the opposite sex. The degree to which a cross-dressed person appears as a member of the other sex varies, depending on mannerisms, body habitus, and cross-dressing skill. When not cross-dressed, these persons usually appear to be unremarkable members of their assigned sex. Cross-dressing can coexist with paraphilias, such as sexual sadism, sexual masochism, and pedophilia. Cross-dressing differs from transsexualism in that the patients have no persistent preoccupation with getting rid of their primary and secondary sex characteristics and acquiring the sex characteristics of the other sex. Some persons with the disorder once had transvestic fetishism, but no longer become sexually aroused by cross-dressing. Other persons with the disorder are homosexual men and women who cross-dress. The disorder is most common among female impersonators.

Body Dysmorphic Disorder. An individual with body dysmorphic disorder focuses on the alteration or removal of a specific body part because it is perceived as abnormally formed, not because it represents a repudiated assigned gender. When an individual's presentation meets criteria for both GD and body dysmorphic disorder, both diagnoses can given. Individuals wishing to have a healthy limb amputated because it makes them feel more complete usually do not wish to change gender, but rather desire to live as an amputee or a disabled person.

Schizophrenia and Other Psychotic Disorders. In schizophrenia there may rarely be delusions of belonging to some other gender. In the absence of psychotic

symptoms, insistence by an individual with GD that he or she is of some other gender is not considered a delusion. Schizophrenia and GD may co-occur.

Other Clinical Presentations. Some individuals with an emasculinization desire who develop an alternative, nonmale, nonfemale gender identity do have a presentation that meets the criteria for GD. However, some males seek castration and or penectomy for esthetic reasons or to remove psychological effects of androgens without changing male identity. In these cases the criteria for GD are not met.

12.5.2 Comorbidity

Clinically referred children with GD show elevated levels of emotional and behavioral problems (most commonly anxiety, disruptive and impulse-control, and depressive disorders). In prepubertal children, increasing age is associated with having more behavioral or emotional problems. This is related to the increasing non-acceptance of gender-variant behavior by others. In older children, gender-variant behavior often leads to peer ostracism, which may lead to more behavioral problems. The prevalence of mental health problems differs among cultures. These differences may also be related to differences in attitudes toward gender variance in children. Anxiety has been found to be relatively common in individuals with GD, even in cultures with accepting attitudes toward gender-variant behavior.

Autism spectrum disorder is more prevalent in clinically referred children with GD than in the general population [33]. Clinically referred adolescents with GD appear to have more comorbid mental disorders, with anxiety and depressive disorders being the most common. As in children, the autism spectrum disorder is more prevalent in clinically referred adolescents with GD than in the general population. Clinically referred adults with GD may have coexisting mental health problems, most commonly anxiety and depressive disorders [34].

12.6 Course and Prognosis

Boys begin to have the disorder before the age of 2–4 years, and peer conflict develops during the early school years, at about the age of 7 or 8 years. Grossly feminine mannerisms may lessen as boys grow older, especially if attempts are made to discourage such behavior. Cross-dressing may be part of the disorder, and 75% of boys who cross-dress begin to do so before the age of 4 years. The age of onset is also early for girls, but most give up masculine behavior by adolescence.

In both sexes, homosexuality is likely to develop in one third to two thirds of all cases, although, for reasons that are unclear, fewer girls than boys have a homosexual orientation. Follow-up studies of gender-disturbed boys consistently indicate that homosexual orientation is the usual adolescent outcome [9].

A small minority of children express discomfort with their sexual anatomy or will state the desire to have a sexual anatomy corresponding to the experienced

gender (anatomical dysphoria). Expressions of anatomical dysphoria become more common as children with GD approach and anticipate puberty.

Rates of persistence of GD from childhood into adolescence or adulthood vary. In natal males, persistence has ranged from 2.2 % to 30 %. In natal females, persistence has ranged from 12 % to 50 %. Persistence of GD correlates modestly with dimensional measures of severity ascertained at the time of a childhood baseline assessment [1].

For both natal male and female children showing persistence, almost all are sexually attracted to individuals of their natal sex. For natal male children whose GD does not persist, the majority are androphilic (sexually attracted to males) and often self-identify as gay or homosexual (ranging from 63 % to 100 %). In natal female children whose GD does not persist, the percentage who are gynephilic (sexually attracted to females) and self-identify as lesbian is lower (ranging from 32 % to 50 %) [1].

Adult male patients who are GD and sexually attracted to male partners may have a continuous development of GD from childhood. Some manifestations of their GD may be driven underground, however, in an effort, during their teens and, perhaps, early 20s, to merge with the larger community. They may also hope or think that their GD will disappear. Sexual interest in male partners begins in early puberty, and some may consider themselves to be homosexual. They find, however, that they do not integrate effectively into the gay community. Approximately two thirds of adult men with GD are sexually attracted to men only.

Gender dysphoria in men sexually attracted to female partners may be characterized as a more progressive disorder with insidious onset. The course is fairly continuous in some cases. In others, the intensity of symptoms fluctuates. Some experience a lifelong struggle with feminine identification that changes in intensity from time to time and may temporarily recede in the face of conflicting desires, such as those for marriage and family. In most cases, the first outward manifestation is cross-dressing in childhood—dressing in mother's or sister's clothing—and many patients report that they first began wishing to be female during that period. The extent of their cross-gender behavior in childhood does not usually warrant diagnosis of GID, however.

Female patients may experience adolescence in which they initially consider themselves lesbian because of sexual attraction to female partners. They come to define themselves as distinct from lesbians, however, because they consider themselves to be men in their relationships with women. They insist that their partners treat them as men and that the partners are heterosexual women. Female patients are often, more often than male patients, in a romantic or sexual relationship at the time of initial clinical assessment.

In earlier clinical experience, it was the rare female-to-male transsexual who reported sexual attractions to male partners. This has changed. Some gender identity clinics report that approximately one tenth of patients born female have a sexual orientation toward men and consider themselves to be gay men [9].

12.7 Treatment

We want to start this topic remembering Matt Kailey's words (http://tranifesto.com/2012/04/16/ask-matt-should-gender-dysphoria-be-in-the-dsm/):

> "When I first started transition, I was pretty anti-therapy, even though I loved my own therapist. I did not, and still don't, like the "oversight" component of therapy with regard to transition. I think that therapy can be very helpful, and I think that it can be especially beneficial when dealing with the "reality checks" that I think are necessary for transition, as well as offering support and ideas with social-role and adjustment issues that can come with transition.
>
> I've always thought that the "gatekeeper" aspect of the therapist's role with regard to approval for hormones and surgery can interfere with a truly beneficial therapeutic relationship. On the other hand, a good therapist, working with a healthy trans person with realistic expectations, can result in a positive experience.
>
> Unfortunately, a lot of trans people have suffered at the hands of ill-prepared, misinformed, or just plain uncaring therapists who have required a lot of jumping through unnecessary hoops, which does not bode well for a valuable relationship. And there are a lot of therapists out there who still believe that gender issues can be "cured", particularly in childhood (one of the concerns of the community was that one of the doctors on the DSM-5 revision committee was known for "treating" children who exhibited gender issues by forcing them into stereotypical gender roles associated with their birth sex).
>
> My own opinion is that I would like to see GID, GD, or whatever psychiatric label comes about for people whose gender identity does not align with their physical sex (or sex assigned at birth) removed from the DSM. I don't think that my "condition" is a mental health issue.
>
> Research has demonstrated that transition, a series of medical procedures, can reduce or eliminate the suicidal ideation and other emotional difficulties that many trans people experience. Therefore, I believe that this is a medical issue and should be treated as such. However, there are some trans people who think that even that is too pathologizing, and that transition procedures should be available as on-demand procedures, with the idea that we know our own bodies and minds and should have the right to make our own decisions about care.
>
> I agree with this as well, and this is where I am torn. I believe that I am responsible for my own body, and that I am capable of making decisions about it. I don't think that I should have to jump through a bunch of someone else's hoops to do what is best for me. But if gender issues are not part of either a psychiatric or a medical diagnosis, and transition procedures can be issued upon request, then transition becomes a series of "elective" procedures, not considered medically necessary, not covered by insurance or other medical programs, and not recognized as a life-saving intervention".

In the second half of the twentieth century, awareness of the phenomenon of GD increased when health professionals began to provide assistance to alleviate GD by supporting changes in primary and secondary sex characteristics through hormone therapy and surgery, along with a change in gender role. As the field matured, health professionals recognized that while many individuals need both hormone therapy and surgery to alleviate their GD, others need only one of these treatment options and some need neither [35].

Often with the help of psychotherapy, some individuals integrate their trans or cross-gender feelings into the gender role they were assigned at birth and do not feel the need to feminize or masculinize their body. For others, changes in gender role and expression are sufficient to alleviate GD. Some patients may need hormones, a possible change in gender role, but not surgery. Others may need a change in gender role along with surgery, but not hormones. In other words, treatment for GD has become more individualized.

As a generation of transsexual, transgender, and gender-nonconforming individuals has come of age—many of whom have benefitted from different therapeutic approaches—they have become more visible as a community and demonstrated considerable diversity in their gender identities, roles, and expressions. Some individuals describe themselves not as gender-nonconforming, but as unambiguously cross-sexed (i.e., as a member of the other sex). Other individuals affirm their unique gender identity and no longer consider themselves to be either male or female. Instead, they may describe their gender identity in specific terms such as transgender, bigender, or genderqueer, affirming their unique experiences, which may transcend a male/female binary understanding of gender [35].

They may not experience their process of identity affirmation as a "transition," because they never fully embraced the gender role they were assigned at birth or because they actualize their gender identity, role, and expression in a way that does not involve a change from one gender role to another. For example, some young people identifying as genderqueer have always experienced their gender identity and role as such (genderqueer). Greater public visibility and awareness of gender diversity have further expanded options for people with GD to actualize an identity and find a gender role and expression that are comfortable for them [7].

Health professionals can assist gender dysphoric individuals with affirming their gender identity, exploring different options for the expression of that identity, and making decisions about medical treatment options for alleviating gender dysphoria.

For individuals seeking care for GD, a variety of therapeutic options can be considered. The number and type of interventions applied and the order in which these take place may differ from person to person. Treatment options include the following [7]:

Changes in gender expression and role (which may involve living part time or full time in another gender role, consistent with one's gender identity).

Hormone therapy to feminize or masculinize the body. Persons born male are typically treated with daily doses of oral estrogen. This may be conjugated equine estrogens or ethinylestradiol or estrogen patches. These hormones produce breast enlargement, the amount being largely determined by genetic predisposition, which continues for approximately 2 years. Other major effects of estrogen treatment are testicular atrophy, decreased libido, and diminished erectile capacity. In addition, a decrease occurs in the density of body hair and, perhaps, an arrest of male pattern baldness. Side effects of endocrine treatment can be elevated levels of prolactin, blood lipids, fasting blood sugar, and hepatic enzymes. Patients should be monitored with appropriate blood tests. Smoking is a contraindication of endocrine treatment because it increases the risk of deep vein thrombosis and pulmonary embolism. There is no effect on voice. Facial hair removal is required by laser treatment or electrolysis. Biological women are treated with monthly or three-weekly

injections of testosterone. Because the effects of exogenous testosterone are more profound than those of estrogen, clinicians should be more cautious about commencing female patients on hormone treatment. The pitch of the voice drops permanently into the male range as the vocal cords thicken. The clitoris enlarges to two or three times its pretreatment length and is often accompanied by increased libido. Hair growth changes to the male pattern, and a full complement of facial hair may grow. Menses cease. Male pattern baldness may develop, and acne may be a complication. Ethinylestradiol in male-to-female transsexuals increases regional fat depots and thigh muscle mass. Conversely, female-to-male transsexuals receiving testosterone may have increased thigh muscle and reduced subcutaneous fat deposition. Thus, cross-sex steroid hormones affect general body fat and muscle distribution, as well as promote breast development in patients born male [9].

Surgery to change primary and/or secondary sex characteristics (e.g. breasts/chest, external and/or internal genitalia, facial features, body contouring). Sex-reassignment surgery for a person born anatomically male consists principally in removal of the penis, scrotum, and testes, construction of labia, and vaginoplasty. Some clinicians attempt to construct a neoclitoris from the former frenulum of the penis. The neoclitoris may have erotic sensation. Postoperative complications include urethral strictures, rectovaginal fistulas, vaginal stenosis, and inadequate width or depth. Some male patients who do not have adequate breast development from years of hormone treatment may elect augmentation mammoplasty. Some also have thyroid cartilage shaved to reduce the male-appearing thyroid cartilage. Patients need to undergo vocal retraining, and those who do not have a fully effective response may undergo a cricothyroid approximation procedure, which can raise vocal pitch. The results of these operations are variable. Female-to-male patients typically may undergo bilateral mastectomy and construction of a neophallus. Because of increased technical skills in phalloplasty, more female-to-male patients are now electing these procedures. Uncertainty and controversy exist with respect to the capacity for sexual arousal by the patient postsurgery. Some patients maintain that they are orgasmic. They describe the sensation of orgasm as more gradual and attenuated than their orgasms preoperatively. On the other hand, some patients report little sexual responsivity postsurgery. No adequate assessments have been made of the physiological functioning of postoperative male-to-female transsexuals with respect to the human sexual response cycle. Many patients, however, report satisfaction with being able to have vaginal intercourse with a male partner [9].

Psychotherapy (individual, couple, family, or group) for purposes such as exploring gender identity, role, and expression; addressing the negative impact of gender dysphoria and stigma on mental health; alleviating internalized transphobia; enhancing social and peer support; improving body image; or promoting resilience.

Options for Social Support and changes in gender expression. In addition (or as an alternative) to the psychological and medical treatment options described above, other options can be considered to help alleviate GD, for example: in person and online peer support resources, groups, or community organizations that provide avenues for social support and advocacy; in person and online support resources for families and friends; voice and communication therapy to help individuals develop verbal and nonverbal communication skills that facilitate comfort with their gender identity; hair removal through electrolysis, laser treatment, or waxing; breast binding or padding, genital tucking or penile prostheses, padding of hips or buttocks; changes in name and gender marker on identity documents.

No convincing evidence indicates that psychiatric or psychological intervention for children with GID affects the direction of subsequent sexual orientation. The treatment of GID in children is directed largely at developing social skills and comfort in the sex role expected by birth anatomy. To the extent that treatment is

successful, transsexual development may be interrupted. The low prevalence of transsexualism in the general population, however, even in the special population of cross-gender children, thwarts the testing of this assumption.

No hormonal or psychopharmacological treatments for GID in childhood have been identified.

Adolescents whose GID has persisted beyond puberty present unique treatment problems. One is how to manage the rapid emergence of unwanted secondary sex characteristics. Thus, a new area of treatment management has evolved with respect to slowing down or stopping pubertal changes expected by the anatomical birth sex and then implementing cross-sex body changes with cross-sex hormones.

Young persons whose previous GID has remitted may experience new conflicts should homosexual feelings emerge. This may be a source of anxiety in the adolescent and may cause conflict within the family. Teenagers should be reassured about the prevalence and nonpathological aspects of a same-sex partner preference. Parents must also be informed of the nonpathological nature of same-sex orientation. The goal of family intervention is to keep the family stable and to provide a supportive environment for the teenager [36].

Adult patients coming to a gender identity clinic usually present with straightforward requests for hormonal and surgical sex reassignment. No drug treatment has been shown to be effective in reducing cross-gender desires per se. When patient GD is severe and intractable, sex reassignment may be the best solution.

12.7.1 Evidence for Clinical Outcomes of Therapeutic Approaches

One of the real supports for any new therapy is an outcome analysis. Because of the controversial nature of sex reassignment surgery, this type of analysis has been very important. Almost all of the outcome studies in this area have been retrospective.

It is difficult to determine the effectiveness of hormones alone in the relief of GD. Most studies evaluating the effectiveness of masculinizing/feminizing hormone therapy on GD have been conducted with patients who have also undergone sex reassignment surgery. Overall, studies have been reporting a steady improvement in outcomes as the field becomes more advanced. Outcome research has mainly focused on the outcome of sex reassignment surgery. In current practice there is a range of identity, role, and physical adaptations that could use additional follow-up or outcome research [11].

For more in-depth information about these topics (the treatment options and clinical outcome of therapeutic approaches in GD) we recommend reading the *WPATH Standards of Care for the Health of Transsexual, Transgender and Gender-Nonconforming People*, seventh version, 2011 [7].

Finally, as health professionals, we must be aware of the corresponding protocols for hormone therapy and surgeries, the informed consent forms, and the biosanitary and bioethical aspects surrounding this topic.

References

1. APA. Diagnostic and statistical manual of mental disorders, DSM 5. 5th ed. Arlington, VA: American Psychiatric Association; 2013.
2. Byrne W, et al. Report of the American Psychiatric Association Task Force on treatment of gender identity disorder. Arch Sex Behav. 2012;41(4):759–96.
3. Foucault M. Surveiller et punir. Paris: Gallimard; 1975.
4. Horney K. The unknown Karen Horney essays on gender, culture and psychoanalysis. New Haven: Yale University Press; 2000.
5. Foucault M. Folie et déraison: histoire de la folie á lâge classique. Paris: Union Gènerále d'Éditions; 1961. English translation: Madness and civilization: a history of insanity in the age of reason. New York: Vintage books edition; 1998.
6. Downing L. The Cambridge introduction to Michel Foucault. Cambridge: Cambridge University Press; 2008.
7. Coleman E, Bockting W, Botzer M, Cohen-Kettenis P, DeCuypere G, Feldman J, Fraser L, et al. Standards of care for the health of transsexual, transgender, and gender-nonconforming people, Version 7. Int J Transgenderism. 2011;13:165–232.
8. Rough garden J. Evolution's rainbow. Berkeley: University California Press; 2004.
9. Sadock BJ, Sadock VA, Ruiz P. Gender identity disorders. 9th ed. Philadelphia: Lippincott Williams & Wilkin; 2009.
10. Strynker S. Transgender history. Berkeley: Seal Press; 2008.
11. Institute of Medicine. The health of lesbian, gay, bisexual, and transgender people: building a foundation for better understanding. Washington, DC: National Academies Press; 2011.
12. Zucker KJ, Lawrence AA. Epidemiology of gender identity disorder: recommendations for the standards of care of the World Professional Association for transgender health. Int J Transgenderism. 2009;11(1):8–18.
13. De Cuypere G, Van Hemelrijck M, Michel A, Carael B, Heylens G, Rubens R, Monstrey S. Prevalence and demography of transsexualism in Belgium. Eur Psychiatry. 2007;22(3):137–41.
14. Reed B, Rhodes S, Schofield P, Wylie K. Gender variance in the UK: prevalence, incidence, growth and geographic distribution. 2009. http://www.gires.org.uk/assets/Medpro-Assets/GenderVarianceUK report.pdf
15. Wallien MS, Zucker KJ, Steensma TD, Cohen-Kettenis PT. 2D:4D finger-length ratios in children and adults with gender identity disorder 2008. Horm Behav. 2008;54:450–4.
16. Coolidge FL, Ll T, Young SE. The heritability of gender identity disorder in a child and adolescent twin sample. Behav Genet. 2002;32(4):251–7.
17. García-Falgueras A, Swaab DF. A sex difference in the hypothalamic uncinate nucleus: relationship to gender identity. Brain. 2008;131:3132–46.
18. Savic I, Berglund H, Lindström P. Brain response to putative pheromones in homosexual men. Proc Natl Acad Sci USA. 2005;102:7356–61.
19. Savic I, Lindström P. PET and MRI show differences in cerebral asymmetry and functional connectivity between homo- and heterosexual subjects. http://dx.doi.org/10.1073/pnas.0801566105
20. Swaab DF. Sexual orientation and its basis in brain structure and function. Proc Natl Acad Sci USA. 2008;105(30):10273–4.
21. Korte A, Goecker D, Krude H, Lehmkuhl U, Grüters-Kieslich U, Beier KM. Gender identity disorders in childhood and adolescence. Dtsch Arztebl Int. 2008;105(48):834–41.
22. Wedeen VJ, Rosene DL, Wang R, Dai G, Mortazavi F, Haggman P, Kaas JH, Tseng WI. The geometric structure of the brain fiber pathways. Science. 2012;335(6076):1628–34.
23. Chen CH, Gutierrez ED, Thompson W, Panizzon MS, Jernigan TL, Eyler LT, Fennema-Notestine C, Jak AJ, Neale MC, Franz CE, Lyons MJ, Grant MD, Fischl B, Seidman LJ, Tsuang MT, Kremen WS, Dale AM. Hierarchical genetic organization of human cortical surface area. Science. 2012;335(6076):1634–6.

24. Bradley SJ. Female transsexualism—a child and adolescent perspective. Child Psychiatry Hum Dev. 1985;11:12–8.
25. Meyer JK. The theory of gender identity disorders. J Am Psychoanal Assoc. 1982;30:381–418.
26. Silvermann MA. The prehomosexual boy in treatment. In: Socarides CW, Volkan VD, editors. The homosexualities. Reality, fantasy, and the arts. Madison: International University Press; 1990.
27. Haber CH. The psychoanalytic treatment of a preschool boy with a gender identity disorder. J Am Psychoanal Assoc. 1991;39:107–29.
28. Gilmore K. Gender identity disorder in a girl: insights from adoption. J Am Psychoanal Assoc. 1995;43:39–59.
29. Zucker KJ, Bradley SJ, Ben-Dat DN, Ho C, Johnson L, Owen A. Psychopathology in the parents of boys with gender identity disorder. J Am Acad Child Adolesc Psychiatry. 2003;42: 2–4.
30. Samkhaniyani E, Khalatbari J, Arkiyan F. The relationship between disconnection and rejection domain on early maladaptive schemas with defense mechanisms in individuals with gender identity disorder. Life Sci J. 2013;10(1s):436–40.
31. Ramachandran VS. The Tell-Tale brain. London: WW Norton & Company; 2011.
32. International statistical classification of diseases and health related problems. The ICD-10. World Health Organization, Geneva, 1992. Spanish translation: Trastornos Mentales y del Comportamiento, CIE 10. Madrid: Meditor; 1992.
33. de Vries ALC, Noens ILJ, Cohen-Kettenis PT, Berckelaer-Onnes IA, Doreleijers TA. Autism spectrum disorders in gender dysphoric children and adolescents. J Autism Dev Disord. 2010; 40(8):930–6.
34. Hoshiai M, Matsumoto Y, Sato T, Ohnishi M, Okabe N, Kishimoto Y, Terada S, Kuroda S. Psychiatric comorbidity among patients with gender identity disorder. Psychiatry Clin Neurosci. 2010;64(5):514–9.
35. Bockting WO. Psychotherapy and the real-life experience: from gender dichotomy to gender diversity. Sexologies. 2008;17(4):211–24.
36. Cohen-Kettenis PT, Gooren LJ. Transsexualism: a review of etiology, diagnosis and treatment. J Psychosom Res. 1999;46:315–33.