Psychiatry and Sexual Medicine

A Comprehensive Guide for Clinical Practitioners

Michal Lew-Starowicz
Annamaria Giraldi
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Preface

Mental disorders are brain disorders and the brain is also the most important sexual organ where sexual desire, pleasure and orgasm, and also satisfaction are generated and where the genital response may be evoked or inhibited. Consequently, all disorders that affect the brain may also affect sexual functioning. Sexuality has a profound effect on general well-being, social functioning, and the quality of life of an individual. Sexual problems are commonly associated with feelings of failure, decreased self-esteem, fear of rejection, and difficulties in forming and maintaining relationships. Decreased mood or performance anxiety is often found in individuals presenting with sexual dysfunction. So there is a clear link between mental and sexual health. Every clinician should be aware of this important interaction and be able to use this knowledge in his/her daily practice. In an analogy to psychiatry, sexual medicine and therapy uses the bio-psycho-social model approach and moreover sexuality may be a paramount example on the interplay of somatic, psychological, and sociocultural factors. Patients are extremely thankful when their doctor, psychologist, or consultant is also able to address sexual- and partner-related problems. These are only few examples why treating people with sexual problems can be a very rewarding activity in the field of clinical medicine.

Problems related with sexual identity, sexual function, and romantic and sexual relationships are very common but highly under-recognized in people suffering from mental disorders. Mental healthcare providers will be confronted with these issues, especially when they actively ask patients about their sexual health. Thus, not only the disease-oriented but also a patient-oriented approach is particularly important when building a therapeutic alliance. Acknowledging sexual problems that may arise from the mental illness, specific socioeconomic situation, or medication-related side effects is crucial at every stage of clinical assessment and therapeutic intervention while ignoring these important issues may negatively affect patient's compliance. It is our hope that this book will help mental healthcare providers in addressing sexual health in their patients.

The first part of this book (Chaps. 1–9) is dedicated to general topics related with sexuality as determined and affected by biological, psychological, and sociocultural factors. It includes also an overview of the development of modern sexual medicine and its links with psychiatry. Good practices in approaching sexuality with a focus on sexual rights, ethical issues, and physician's attitudes are also described.

The second part (Chaps. 10–12) gives the reader more insight into clinical sexology, especially pathophysiology, assessment, and management of sexual dysfunction and related problems with the use of biological and psychological interventions.

Chapters 13–23 are dedicated to various mental disorders and their interaction with all aspects of sexuality as well as disease-specific interventions. Chapter 24 deals with the impact of psychopharmacology on sexual functions and the burden of treatment-emergent sexual dysfunction. Recommendations for clinical assessment and management strategies based on current knowledge are thoroughly discussed.

A separate section of the book (Chaps. 25–27) is dedicated to traumatic sexual experiences and variant sexual behaviors. These topics strongly bind psychiatry and sexual medicine as paraphilic disorders are considered mental health conditions while both the assessment of real and potential sexual offenders and helping victims of sexual abuse require a proper expertise in both disciplines.

Gender incongruence (Chap. 28) is a topic specifically related with sexual identity but also of a great relevance for the mental healthcare providers who may deal with the burden of gender dysphoria and social stigmatization, including increased psychiatric comorbidity and suicidality in transgender or genderqueer population. In many countries, a professional opinion on mental health is a prerequisite for a legal gender change or implementation of particular procedures of gender affirming treatment, which demands proper knowledge from psychiatrists and psychologists.

The last part of the book groups special topics of interests both for psychiatry and for sexual medicine. These include a commonly neglected topic of sexuality in the elderly, broadly discussed out-of-control sexual behaviors with compulsive sexual behavior disorder being a new psychiatric diagnosis for the ICD-11, and three relatively rare but difficult clinical management conditions—genital dysmorphophobia, persistent genital arousal disorder, and postorgasmic illness syndrome.

The book is intended to be a comprehensive and practical guide for clinical practitioners–specialists and trainees in sexual medicine, clinical sexology, and psychiatry, psychotherapists, and all other healthcare providers and students who want to improve their knowledge and skills to help patients suffering from problems related with sexual health. Clinical problems are illustrated with case presentations, recommendations for the assessment and therapeutic interventions are given based on evidence-based data and authors' clinical experience.

This interdisciplinary project would not be possible without a group of dedicated people—excellent specialists from many different countries, working in the fields of psychiatry and sexual medicine, here reviewing available evidence, sharing their knowledge and practical skills. We are very grateful for their contributions and thank them for their patience and ongoing support to the project. The project was also supported by the European Society for Sexual Medicine, our professional network and leading professional organization providing research and education in the field of sexual medicine. We appreciate very much the great work by Dr. Gilian Tenbergen who was not only coauthor but who also performed linguistic editing of all chapters. We also feel obliged to recall Professor Marcel Waldinger, a great researcher, clinician, and our friend who was engaged in this book at the beginning,

however who unexpectedly passed away. As a consequence we were not able to have him as an author; however, his tremendous contribution to the field of sexual medicine can be found in many references in this book. Last but not the least, we have to acknowledge our families for their loving support and our patients for sharing their intimate experiences that teach us things we cannot find in meta-analyses or research articles.

We hope the readers will find this book useful in their daily clinical practice.

Warsaw, Poland — Michal Lew-Starowicz
Copenhagen, Denmark — Annamaria Giraldi
Hannover, Germany — Tillmann H. C. Krüger
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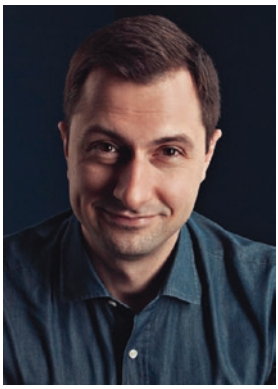

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He is Fellow of the European Committee of Sexual Medicine (FECSM) since 2012 and EFS-ESSM certified Psycho-Sexologist (ECPS) (European Federation of Sexology, European Society of Sexual Medicine) since 2018. He has a special authorization for consultation hours in sexual medicine and sex therapy by the Association of Statutory Health Insurance Physicians in Lower Saxony, Germany, since 2012. In his consultation hours he meets people with all kind of sexual disorders and problems with a special emphasis on the interface of psychiatry, neurology, and sexual medicine.

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Historical Links Between Psychiatry and Sexual Medicine

1

Nikolaos Vaidakis and Fotini Ferenidou

1.1 Introduction

The history of sexuality starts with the appearance of humans approximately two million years ago. At that time, reproductive behavior completely overlapped with sexual behavior. Slowly, over the centuries alongside economic and social changes, sexual behavior became independent from reproductive behavior. This opened the way for what we call sexology, namely, the scientific field that studies sexual behavior in a broad sense, regardless of its reproductive role. The history of scientific sexology is quite recent and can be placed somewhere in the mid-eighteenth century, although documents reporting sexual behavior have been found in ancient Egypt, Mesopotamia, Greece, India, Rome, Arabia, etc. For example, the *Ars Amatoria* which was published in the first year B.C., by Ovidius (43 B.C.–18 A.C.), was considered a scandal at that time and caused the exile of Ovidius in 8 A.C., with the command of the emperor Augustus [1, 2].

1.2 Psychiatry and Sexual Medicine

In the so-called Western world, the Christian church up until the mid-eighteenth century largely regulated sexual behavior. According to the church, sexual function should be performed solely for procreation including clear instructions on how sex was permitted to be performed. Nowadays, religious restrictions regarding sexual behavior still exist. For example, masturbation and premarital sex are considered sins for many branches of the Catholic church [3]. Similarly, most Protestant church branches consider homosexuality and sex outside marriage a violation of one of the

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ten Decalogue commandments [4]. The Mormons view masturbation, pre- and extramarital sex, as well as homosexual activities as sins [5]. Islam forbids sexual contact during menstruation and considers adultery and premarital sex as sinful. Finally, traditional Judaism does not accept adultery and homosexual sexual practices [6].

A few decades before the French Revolution, in 1760, a Swiss doctor, Samuel Auguste Tissot (1728–1797), published a monograph entitled *L'Onanisme ou Dessertation physique sur les maladies produites par masturbation* [7]. In this book, Tissot argues that masturbation is not only a sinful act, but it is also responsible for a number of pathological conditions. Although this book caused panic to parents of boys, it triggered the interest to study sexual function and contribute to what was later called the *medicalization* of sexual behavior. Thus, the previous tradition that characterized most expressions of sexual behavior as sinful acts began to slowly change with medicalization, as they were gradually presented as some kind of *morbidity*. Medicalization, therefore, should be seen as a product of the various social tendencies throughout history. It did not require the active involvement of physicians, but instead, it invoked the science of medicine in order to support particular ideological views [1].

Physicians who studied sexual behavior in those times were not called psychiatrists, but mainly phrenologists. Phrenologists, who appeared later, were denounced by the mid-nineteenth century as "pseudoscientists." According to A. Marneros, "the term 'psychiatry' was first introduced in 1808 at the University of Halle in Germany (known today as Martin Luther University, Halle-Wittenberg)." Its originator was Johann Christian Reil (1759–1813), professor of therapy at the University of Halle [8]. Similar to the phrenologists who borrowed the Greek word "phren" (mind) for phrenology, the word "psychiatry" is derived from the Greek word "psyche" (psyche) and the ending "-iatry" from the Greek word iatros, "physician." Reil's two essential reasons for establishing a new medical discipline for psychiatry were, first, the principle of the continuity of psyche and soma, and second, the principle of the inseparability of psychiatry from medicine [8]. However, the term *psychiatrist* started to become established at the end of the nineteenth century. Meanwhile, R.F. von Krafft-Ebing (1840–1902), an Austrian-German psychiatrist, published *Psychopathia Sexualis*. His monograph studied sexual topics such as female orgasm, homosexuality, and sexual offenders' behavior. Interestingly enough, he is considered one of the first scientists who indicated that homosexuals are not mentally ill. He is a pioneer in the "medicalization" of sexology, since he attempted to describe sexual functions in categories and use definitions for the understanding of sexual problems [9]. In 1907, the term "Sexualwissenschaft," meaning *sexual science*, first appeared through the book of the German dermatologist Iwan Bloch (1872–1922) *Das Sexualleben unserer Zeit* (*The sexual life in our time*). There he describes the interdisciplinary approach of sexology. At the same time, the German physician and sexologist Magnus Hirschfeld (1868–1935) edits the first journal on sexology named "Zeitschrift fur Sexualwissenschaft," along with the establishment of the first official organization of sexology the "Medical Society for Sexology and Eugenics." Later in 1928, he cofounds the World League for

Sexual Reform, an international organization, together with Havelock Ellis (1859–1939) and Auguste Forel (1848–1931) [9].

The person who combined the new trends from sexology and psychiatry is undoubtedly Sigmund Freud (1856–1939), whose views heavily influenced the twentieth century. Freud, in his attempt to discover the biological background of mental illness, conceived the ideas of the importance of the unconscious and its defenses and motivations. His contribution through his clinical work on patients on the understanding of psychological development was enormous, founding the principles of psychodynamic understanding of human behavior. Freud's views strongly connected psychiatry to sexology, since he supported the idea that psychological, as well as sexual, problems tend to originate from unresolved intrapsychic conflicts starting back to the first years of development. The unmasking of underlying conflicts and problematic attachment to the parents through long-term psychotherapy that would address such matters was considered the therapeutic approach to such problems [10]. In traditional psychodynamic theory, sexual problems were supposed to express a dysfunction in personality development [10]. Although Freud was a pioneer in psychotherapy, many psychoanalytic perceptions on what is normal or deviant are not based on robust evidence, and psychoanalytic psychotherapy is far too long and expensive in comparison to other approaches, making traditional psychoanalytic psychotherapy less popular throughout the development of sexology.

1.3 Developments in the Second Half of the Twentieth Century

The developments in the field of sexology and psychiatry during the period between the mid-nineteenth and mid-twentieth century have been significant. However, those that appeared in the second half of the twentieth century are undoubtedly tremendous.

Alfred Charles Kinsey (1894–1956)—an American biologist and professor of zoology and entomology—and colleagues published two books (in 1948 and 1953) that received massive publicity. The authors of these books revealed that the US population frequently not only experienced sexual problems but also described a variation of sexual experiences and practices. Their findings went against many myths regarding sexual behavior, revealing facts about interesting sexual topics such as homosexuality, masturbation, etc. His reports were a milestone regarding the study and the approach of sexual problems and behavior [9].

In 1955, John Money (1921–2006), a psychologist at Johns Hopkins University, borrowed the term *gender* from the English grammar and used it in sexology (see Chap. 28 for further information about gender incongruence). This created several problems of comprehension until our days (see below). In 1966, Harry Benjamin (1885–1986), a German physician whose first specialization was in endocrinology, released a book titled *The Transsexual Phenomenon*. After nearly 20 years of medically assisting individuals who experienced discomfort and dysphoria regarding their sex assigned at birth, he became a pioneer in transgender studies. The term

"transsexual," used from the 1950s onward, described gender dysphoric individuals who had a continuous interest to transform their bodies and their social role and was included in the DSM-III in 1980 [11].

The true beginning of *sex therapy* occurred with William Masters (1915–2001), an American gynecologist, and Virginia Johnson (1925–2013), his assistant and later his wife. Their books, *Human Sexual Response* (1965) and *Human Sexual Inadequacy* (1970), became very famous for their discussions of sexual problems after their observations on the sexual response cycle [9]. The person who integrated the Masters' and Johnson's healing program into psychotherapy was the psychiatrist Helen Singer Kaplan (1929–1995). Her book *The New Sex Therapy* (1974) remains to today a very informative handbook on sex therapy. A number of other important psychologists and psychiatrists from both sides of the Atlantic contributed in the 1970s to establish what is since then called *sex therapy* [1].

In late 1982, the French urologist R. Virag [12] published a letter in *The Lancet* in which he reported that during a urological intervention, he accidentally injected papaverine into a patient's penis, and this resulted in a prolonged erection. A few months later, G. Brindley [13] published his work on the effects of phentolamine and phenoxybenzamine. With the introduction of these substances, urologists entered the field of treatments for erectile dysfunction and after a short while for all male sexual disorders, thus ushering in the subspecialty of *andrology*. With the introduction of phosphodiesterase-5 inhibitors, andrologists enriched their therapeutic armamentarium (see Chap. 11 for more information about male sexual dysfunctions). Similarly, but not yet to that extent, female sexual function and its disorders had also been medically approached. Several pharmaceutical agents, such as tibolone or (most recently) flibanserin and bremelanotide, have been studied and suggested mainly for the treatment of hypoactive sexual desire disorder (HSDD) (see Chap. 10 for more information about female sexual dysfunctions). Flibanserin and bremelanotide have been approved by the FDA for the treatment of HSDD in premenopausal women [14]. Improvement of contraceptive methods, the spread of erectile dysfunction drugs, and the high demand for information on sexual issues led to the development of *sexual medicine* as its own unique field of study. Therefore, sexology met a new era, becoming strongly medicalized and moving apart from psychiatry. The current view of sexual dysfunction as a multifactorial problem offers a dynamic, interactive potential among organic and psychogenic factors. This recent, alternative view proposes a return of the influence of neuroscience (including psychiatry and psychology) in the approach of sexual medicine [15].

All these developments have attracted the strong interest of mass media, television, cinema, and even literature and employed descriptions that were often unnecessary for the central meaning of sexuality. Scientific journals are being published that deal exclusively with sexual function, and several conferences are being held every year worldwide. Sexual rights are publicly expressed and defended, and a large number of companies and institutions are taking care of people's sexual health.

The French philosopher Michel Foucault (1926–1984) and his fans supported the notion that the liberalization of sex and the detailed scientific descriptions of sexuality's parameters could be part of a modern adjustment and control systems.

What is considered as "normal" sexual behavior is derived from the mass enforcement of rules and values on individual sexual behavior. Nevertheless, this view may harbor dangers, ignoring the uniqueness and the social dynamics of a behavior so common and simple that all animals can perform [1, 16].

1.4 Challenges of Psychiatry, Psychology, and Sexual Medicine in the Twenty-First Century

1.4.1 Gender vs. Sex

Over the course of centuries with socioeconomic and cultural changes, the human species "released" reproductive function from its bond to reproduction cycle and moved it to the brain. Sexual "liberation" let people have sex for so many other reasons, apart from reproduction with a focus on pleasurable and recreational sex (see Chap. 6 for more information about the mental health benefits of sex). Assuming this hypothetical consideration is correct, we could say that the release of sexual reproduction signified the beginning of sexology.

In the *Sex in History*, the British historian R. Tannahill (1929–2007) [17] clearly described the strong *regulatory* impact of society on the expression of sexual behavior. However, the roots of social sexual behavior are in the biology of reproduction, and therefore the shaping of sexual behavior is formed by biological, social, and psychological factors as shown in Fig. 1.1.

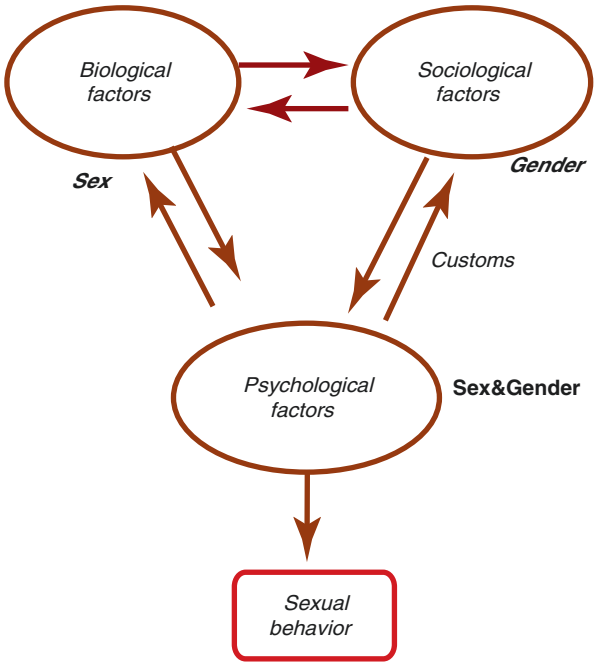

Fig. 1.1 Configuration of sexual behavior

The transition from a psychiatric approach focusing on the individual person to a structural social approach has been described as moving from the "medical model" to the "social model," in which the identification of a disorder is considered from a social rather than a biological perspective. No matter how strong the social impact may be in shaping the expression of sexual behavior, we cannot completely ignore or minimize the biological influence as a secure base.

The first article in the field of sexology wherein the word gender was first used, "Hermaphroditism, gender and precocity in hyperadrenocorticism: psychologic findings," was by J Money (1955). The term gender spread widely thereafter as it was adopted in the 1970s by feminist schools as a way of distinguishing the "socially constructed" differing aspects of men and women from the "biologically defined" aspects (sex) [18].

In the recent fifth version of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-5), the term *gender* is used to describe the public (and usually legally recognized) lived role as a boy or a girl, a man or woman, but, in contrast to certain social constructivist theories, biological factors are seen as contributing, in interaction with social and psychological factors, to gender development [19]. While the term *sex* refers to the "biological indication of male and female (understood in the context of reproductive capacity), such as sex chromosomes, gonads, sex hormones, and nonambiguous internal and external genitalia, the definition of *transgender* refers to the broad spectrum of individuals who transiently or persistently identify with a *gender* different from their *natal gender*" [19]. R. Trivers comments that "the root of differences between men and women should no longer be sought in biology, but in purely cultural conventions, such as those governing the grammatical genders of the words" and "The more arbitrary the gender of words, the more arbitrary the assignment of sex differences" [20].

In this context, one can argue that "sexology" covers the biological parameters of reproduction and sexual function, while, if one could use a neologism, "genderology" refers to all these parameters that define these in their social context. It includes several terms such as gender variation, gender nonconformity, gender queer, gender fluid, bigender, gender neutral, agender, and nonbinary, along with "trans," transsexual, and transgender [21].

Realizing the overlap of concepts such as sex and gender, the WHO states that "sometimes it is difficult to understand exactly what is meant by the term 'gender', and how it differs from the closely related term 'sex'." Yet, in this statement, WHO not only defines them but also provides examples for better understanding (WHO) [22].

1.4.2 Sexual Health

Over the last few decades, several definitions have been formulated to illustrate the difficulty of understanding the term "sexual health." These definitions were partly formed by political, social, and historical events such as the aftermath of the 1960s sexual uprising, the social struggle for reproductive rights and the right to abortion,

the gay rights movement, the issue of overpopulation and its threat, and HIV/AIDS [24]. On the other hand, recent studies using functional brain imaging techniques shed light on the distinct neural circuits that are involved in all phases of sexual function, focusing on its central regulation from the brain [25].

The difficulty of a clear and functional definition of health also accompanies the identification of sexual health, which is made more difficult by the great diversity of sexual behavior, especially with the "gender" invasion, which multiplied the categories of sexual behaviors that should be incorporated into the definition of sexual health. According to the current definition by WHO (2006), sexual health is

> "... the state of physical, emotional, mental and social well-being in relation to sexuality; it is not the absence of disease, dysfunction or infirmity. Sexual health requires a positive and respectful approach to sexuality *and sexual relations*, as well as the possibility of having enjoyable and safe sexual experiences, free from coercion, discrimination and violence. For sexual health to be attained and maintained, the sexual rights of all persons must be respected, protected and fulfilled" [26].

It is easy to observe that this concept of "well-being" is quite subjective. Still, the phrasing "... *and sexual relations*" does not specify the type of relationship. Does a simple sexual encounter represent a true relationship with someone, and is it the same as an emotionally stable relationship? The impression is that interpersonal relationships play a secondary role. However, *since sexual function is the main function that promotes the creation of bonds*, one wonders whether sexual health can be defined without substantial involvement of the other person.

In a recent article on the new 11th version of the ICD, sexual dysfunctions are classified under "Conditions Related to Sexual Health," clarified by the following statement: "Also, the proposed diagnostic guidelines make clear that there is no normative standard for sexual activity." "'Satisfactory' sexual functioning is defined as being satisfying to the individual," again maybe in an attempt to demedicalize sexual function and keep it away from strict norms and conditions and also may include sex without another person [27].

1.4.3 Diagnostic Categories and Criteria of Sexual Disorders

Sexual dysfunctions and disorders are included in diagnostic and statistical manuals such as the *International Classification of Diseases* (ICD) and the *Diagnostic and Statistical Manual of Mental Disorders* (DSM). Their criteria, as presented in the newest version of these manuals (ICD-11 and DSM-5) have gone through big changes.

The ICD, by the World Health Organization, is an international standard for reporting diseases and health conditions, for clinical and research purposes. The latter, ICD-11 [23], presents sexual dysfunctions and disorders, paraphilic disorders, gender incongruence, as well as other conditions, in the section "Conditions related to sexual health," likely in an attempt to demedicalize sexual behavior. A further acceptance of a variety of human sexual behaviors and greater tolerance for

an expression of sexuality that is different for a majority of people came as a relief for individuals who previously felt like "perverts" due to their sexual activities (see Chap. 27 for more information about paraphilias) [1]. For example, some paraphilias may no longer be considered pathological, such as BDSM ("bondage and discipline, dominance and submission, sadism and masochism") practices, which are excluded in the ICD-11, unless they have to do with "coercive sexual sadism disorder."

DSM-5, by the American Psychiatric Association, is an expansive manual of mental illness [19]. For each illness, including sexual dysfunctions, it provides diagnostic criteria and discusses the disorder from perspectives that include development, genetics, and temperament. The number of diagnostic categories of sexual dysfunctions in DSM-5 is fewer compared to DSV-IV, while new criteria are proposed for disorders such as "female sexual interest/arousal disorder." Interestingly enough, based on DSM-5, almost half of *male* disorders involve time as a basic criterion, while none of the *female* disorders are correlated with time. However, no one can determine how long a "normal" intercourse "must" last. New criteria have recently been proposed for premature (early) and delayed ejaculation [28]. One may reasonably wonder what "must" and "normal" mean. There seem to be no easy answers to these questions. There is a great deal of ambiguity about the role of time in almost all sexual dysfunctions, but this ambiguity becomes more essential for premature ejaculation because science needs to clarify what is premature, i.e., premature, in relation to which goal? Fast, in relation to which speed? It is not unreasonable to consider such concepts in light of a recent (2017) article that proposes modification of the criterion of time and focuses on "distress" and "lack of control" [28].

If we take into consideration that sexual function usually involves two people, should future criteria take into account the quality of the relationship? If sexual function is considered to be a part of the emotional relationship of the involved parties, then the sexual act would take place in accordance to needs changing from day to day in the context of the shifts of the overall relationship. Present diagnostic manuals (DSM-5 and ICD-11) make an attempt to take into consideration the most possible and important contributor to a sexual problem (relationship, culture, medication, etc.), through the use of factors that *associate* with the problems and factors that *modify* them.

1.5 Sexualization, Desexualization, and Health

Over time sexual activities have shifted from sin to morbidity *(medicalization)*, and then humanized *(demedicalization)*, and recently came to be considered "therapeutic" *(healthicization).* Psychiatry has historically played a major role in the understanding of sexual behavior, a role that went through different stages from the evaluation of what is normal and what is not (as seen in previous diagnostic and statistical manuals) to mainly the promotion of sexual health, rights, and equality as described above. The latter role is presented in the recent ICD-11, where most

sexual dysfunctions are considered "Conditions related to sexual health" as an attempt to demedicalize them but at the same time maintain the connection between sexual health and the healthcare systems and the access to medical specialists.

Sexual health is nowadays considered particularly important for mental and physical health. There is research [29, 30] stating that sexual activity helps in the treatment of cancer, improves immune system function, and helps prevent diseases.

Society has always played a major role in what is considered normal, pathological, or perverted. Nowadays, it is encouraging women to look like *Playboy's* centerfold or seek and achieve multiple orgasms and men to look for the perfection of Priapus. Therefore, we may be moving toward what is called "the tyranny of sexuality," an overestimation of sexual performance and an overmedicalization of our sex lives [1]. It appears that at this stage in history, sex is being sold to the public as a mediator of good health and as a duty (in order to have good health). However, common sense argues that if humans procreated for about two million years in the same way, why must they now increase their performance in order to earn these benefits?

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Sexual Diversity and Transcultural Context

2

Antonio Ventriglio, Matthew Kelly, and Dinesh Bhugra

2.1 Introduction

The aetiology of sexual identity or the development of a particular sexual orientation has yet to be established. To date, much research has been conducted to determine the influence of genetics, hormonal action, developmental dynamics and social and cultural influences on sexual identity. Sexual activity is universal as is variation in sexual activity. The exact nature of sexual variation is identified by both the individuals and the cultures and society they live in. Sexual variation is related to what is perceived as deviant or variant, with these constructs defined by the cultures and societies in which we live. These variations can be simple or complex deviations, whereas others are seen as pathological extremes. For example, same-sex attraction and activity is often seen as simple variation, whereas some may be seen as paraphilias.

Various 'preferences' and sexual interests have fallen in and out of being defined as paraphilic. For example, up until 1973, homosexuality was classified as paraphilic under the DSM (*Diagnostic and Statistical Manual of Mental Disorders*)-II. Its subsequent removal led to some arguing that if homosexual orientation is not in itself abnormal, then the inclusion of other sexual behaviours classified as paraphilic cannot be justified as a concept and should be removed entirely from future editions. There is great controversy concerning paraphilias, defining what is normal

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versus deviant or disordered, given that this is to some degree dependent on cultural views of acceptability and the dictating of the legality of certain sexual behaviours. Paraphilias are defined in the DSM-5 as 'recurrent, intense sexually arousing fantasies, sexual urges, or behaviours that occur over a period of at least 6 months generally involving non-human objects, the suffering or humiliation of oneself or one's partner, or children or other non-consenting persons'. Paraphilias vary hugely with some being preferences that are usually socially acceptable within the confounds of one's private life such as fetishistic disorder (use of inanimate objects to gain sexual excitement) or sexual masochism (wanting to be humiliated, beaten, bound or otherwise made to suffer for sexual pleasure). Other paraphilias involve preferences which if acted upon could result in criminal prosecution such as exhibitionism (exposing one's genitals or performing sexual acts in front of an unsuspecting person), frotteurism (touching or rubbing against a non-consenting person) and paedophilia (sexual preference for prepubescent children).

Cultures and societies also dictate what legal or illegal behaviour is. It is important to recognise that what is seen as illegal now may not have been illegal in the past and may not be so in the future. Societal and cultural expectations change as cultures and societies evolve and change. Once the society or culture has determined what is deviant, they may use legal templates to make the behaviour illegal so that the behaviour gets managed in the legal system or in the medical system as specific offender treatment programmes. Because of this, determining the exact prevalence of paraphilias within society can be difficult. It is also likely that the legal status of any behaviour will also determine whether individuals themselves are encouraged to seek help and support from their community and healthcare system or end up having to receive help through the judicial system. This determines whether any therapeutic interventions are delivered compulsorily or voluntarily.

Sexual orientation and behaviour are affected by sexual feelings, gender identity, bodily differences, reproductive capacities and interest as well as sexual needs, fantasies and desires. Sexual orientation, sexual identity, sexual fantasy and sexual behaviours are separate and should be seen as such. They can be seen as affecting each other, but it is also worth recognising that sexual fantasy may be very personal and used for arousal but sexual act needs sexual behaviour. For example, a heterosexual man when deprived of access to opposite sex may have sexual intercourse with a man, but their fantasies and orientation may remain heterosexual. Inversely, an individual can have fantasies such as violent sexual fantasies which they will never carry out in their sexual behaviour.

In this chapter, we focus on sexual variations and do not intend to cover transgender issues in detail. Often terms get confused, and it is important for the reader to be aware of the exact terms that explain sexual variation. It must be recognised that sexual variations are not mental illnesses according to any diagnostic criteria; minority status however may well contribute to developing mental illnesses.

Bullough described societies as sex positive or sex negative [1]. He argues that in sex-positive societies, the main purpose of sexual activity is seen as receiving and giving pleasure, and the emphasis is not on procreation. On the other hand, sex-negative societies place a strong emphasis on procreation as the main purpose of

sexual activity. It must be recognised that cultures are dynamic, and cultural attitudes change with time and due to a large number of factors, as well as there are differences within the same societies. For example, Bullough argues that Hindu cultures were very sex positive; hence, temples dedicated to sexual activities and the first sex manual *Kama Sutra* reflected freedom of sexual minorities and attitudes making it sex positive. However, after the Mughal invasions and then as a result of British Empire which brought with it Victorian attitudes to sex, negative attitudes to sexual activity turned the current societal attitudes to those of a sex-negative culture [1]. Hence, it is inevitable that cultures will determine attitudes to sexuality, sexual minorities and variation, and these may well change according to changes in social norms and expectations. Krafft-Ebbing [2] wrote an important volume called *Psychopathia Sexualis* describing various sexual variations and fetishes. He recognises that different cultures have different views on sexual matters. He describes absence of sexual desire as well as increased desire. In addition, he points out that sadism and masochism are strongly affected by fetishes which include a range of activities such as hand or foot fetishes, body parts, bestiality and inanimate objects such as shoes. Using his clinical cases as examples, he emphasised that a thorough mental state assessment is needed to ensure that underlying psychiatric disorders are excluded.

2.2 Definitions of Variations

Sexual variations can be defined as variation in sexual orientation, which should be seen as innate although some *behaviours* can be learned. For example, lesbian, gay, bisexual, transgender and queer groups (LGBTQ) are often lumped together and are often seen as a homogenous community, but it must be emphasised and recognised that they are not homogenous, and each group or each individual has varying needs and stressors which may also change from time to time in response to various factors. The term LGBTQ also describes both people defined by orientation (lesbian, bisexual, gay) and by identity (transgender and queer). It is tragic that in large parts of the world, these identities and sexual behaviours continue to remain illegal as a result of historical developments.

Sexual variation or sexual minorities have been defined in ways related to gender identity or sexual attraction. For example, transgender individuals are considered a sexual minority, whereas the act of homosexuality in orientation and action can be seen as sexual variations. Various terms have been used to illustrate sexual minorities and sexual variations, and although some terms have remained consistent, others have transmogrified over a period of time.

For a considerable period of time, gay men in particular were called queer, but after time use of the term was dropped as it was considered derogatory. However, the term was reappropriated to develop a discipline of studies called queer studies, but Q has sometimes been used to express questioning (i.e. those who are not certain about their sexual orientation and identity). Sexual and gender fluidity indicate a fluctuating mix of options available. An individual who sees themselves as sexually

fluid can also indulge in sexual activities with different groups of individuals whether they are same sex or opposite sex.

Homophobia—though technically not a clinical phobia—consists of irrational fear and hatred that heterosexual people may feel towards homosexual individuals. Similar negative attitudes towards bisexual (biphobia) and transpeople (transphobia) can produce negative attitudes and discriminatory actions. There are 69 countries around the globe which see homosexual behaviour as illegal. Recently, India decriminalised homosexuality, and court decisions are pending in Kenya and in Singapore. Of course, social attitudes and mores play a role in developing tolerant or negative attitudes to sexual activity and sexual behaviours.

Attitudes towards sexual orientation and identity as well as sexual variation are strongly influenced by not only social attitudes to actual masculinity or femininity but more importantly how they are perceived. Hofstede describes cultures having five dimensions of which collectivism/individualism (sociocentrism/egocentrism) and masculine/feminine are perhaps most important [3]. Countries such as Japan; various German-speaking countries; various Caribbean and Latin American countries such as Venezuela, Mexico and Colombia along with Italy; and Anglo (phone) countries such as the USA, the UK, Ireland, Australia and New Zealand are high on masculinity index (a measure the degree to which an individual holds typically masculine values over feminine values). On the other hand, countries such as France, Spain, Peru, El Salvador, Chile, Uruguay, Guatemala, Portugal, Costa Rica and former Yugoslavia have low masculinity index, whereas Finland, Denmark, Norway, Sweden and the Netherlands show extremely low masculinity index. Thus, it can be hypothesised that feminine cultures such as Scandinavian cultures may well be more tolerant of sexual variations and sexual minorities and allow a more just society [3].

Complicating dimension of culture related to sociocentrism and egocentrism is that the former may be more sex-negative societies. Sociocentric cultures have more joint families or extended families where an individual's status is predetermined with strong social links. These individuals may have either limited or no choice in partner selection and marriage. Focus here is on group advancement, emotional interdependence and collective identity, thereby putting pressure on the individuals to conform. Interestingly, rates of crime, divorce and suicide are said to be higher in egocentric societies as is the gross national product. Egocentric individuals are also likely to ignore needs of community and focus on nuclear families [4]. They appear to put more emphasis on individuals, nuclear families rather than kinships or extended families. Thus, it can be hypothesised that they are more likely to see sexual activity as a pleasurable activity.

In many cultures, such as the Sambia [5], a third gender in India known as *hijras* are readily and culturally accepted [6]. Transgender is now recognised in official Indian documents as a categorisation of gender. In Thailand, *Kathoey* or lady boys are well-recognised as the third gender although there appears to be some clear discrimination. There is anecdotal evidence that in Brazil and Mexico, a third sex is recognised, but discrimination appears rife and positive attitudes are gradually being replaced by very negative attitudes. It is possible that LGBTQ individuals may decide not to seek help for health (including mental health needs) if they

perceive discrimination or negative attitudes. It has been hypothesised that people in sex positive cultures may well have higher rates of paraphilias in comparison with sex-negative cultures although robust data are not available [7].

2.3 Prevalence Rates of Sexual Variations

In any given population, it can be difficult to determine accurate numbers of non-heterosexual individuals as these depend upon the methods used for identification and other factors including self-identification and objective assessment across various domains. It is likely that where same-sex behaviours are illegal, individuals may not acknowledge any variations so only estimates can be obtained. Prevalence rates of sexual minorities are said to vary between 1 and 16% [8]. These authors suggest that by age 28, 2% men and 4% women identify their sexual orientation as gay, lesbian or bisexual, whereas 6% of men and 20% women claim that they are not exclusively heterosexual.

2.4 Rates of Psychiatric Disorders

For a considerable period across many countries, same-sex behaviour—especially among men—was itself seen as a mental illness. This changed in the USA following Stonewall riots in 1969. Paradoxically, same-sex behaviour among women has not been typically seen as criminal or mentally ill. There is considerable research and epidemiological evidence that those belonging to LGBTQ groups are often shown to have higher rates of psychiatric disorders, and reasons for such high rates are especially related to social and cultural factors. Minority stress experienced by minorities whether they are sexual or ethnic or religious can contribute to a sense of bewilderment, frustration, alienation and possibly anger which may precipitate psychiatric disorders. It is entirely possible that while growing up, individuals with a minority status may realise that they are not being accepted by the majority group and undoubtedly this will affect their self-worth and self-esteem which may go on to contribute to higher levels of depression. As a result, they may feel undervalued as members of society, and through internalising these negative experiences, they may develop psychiatric illnesses such as depression and anxiety, thereby increasing their vulnerabilities and risks to other psychiatric and physical disorders. Those individuals belonging to sexual minorities tend to navigate their lives differently, and their associated stresses increase their likelihood of developing mental illness. Studies in Australia have shown higher rates of anxiety and depression in sexual minorities than in individuals who identify as heterosexual [9]. Sexually variant women also show higher rates of suicidal ideation, self-harm and attempted suicide [9, 10]. People who may be LGBTQ may well seek help from psychiatrists or other mental health professionals to try and make sense of their feelings and emotions. Recent position statements by the World Psychiatric Association as well as other psychiatric organisations make it clear that conversion therapy has no role to play and should not be tried [11].

Hatzenbuehler et al. investigated the modifying effect of state-level policies on the association between mental health and sexuality [12]. In a survey of 34,653 participants, of whom 577 were identified as LGBT individuals, these authors found that psychiatric co-morbidity among LGBT individuals was 3.5 times higher when compared with self-identified heterosexual individuals. Not surprisingly, in those states where no policies of protection to LGBT individuals (i.e. which did not have policies of equality) existed, higher rates of psychiatric disorders were found. Rates of any mood disorder were twice (20.4%) those seen in the heterosexual sample (10.2%) as were anxiety disorders (30.1% in comparison with 16.1%) and substance abuse (40.8% in comparison with 20.9% heterosexuals), but alcohol use was even higher at 2.5 times. In a subsequent study, the same group observed a striking finding. They noted that once the state had approved and legalised same-sex marriage (thereby confirming equality of status in law, thus perhaps eliminating or reducing discrimination), there was a clear and significant decrease in mental healthcare visits and a reduction in hospital visits related to physical health issues in sexual minority men in comparison with data 12 months prior to legalisation [13]. These observations therefore confirm that social factors including legal protection and equality are important factors in reducing rates of psychiatric disorders. In a further study in the USA, the same group reported that higher levels of local approval of same-sex marriage lowered the probability that LGBT (and non-LGBT) individuals reported smoking and fair/poor self-rated health. Interestingly, LGBT disparities in smoking were lower in communities where residents were most likely to support same-sex marriage, thereby indicating that social determinants contribute in a significant way into affecting rates of smoking and psychiatric disorders [14].

2.5 Attitudes

Focusing on same-sex *behaviour* only, at the present time (2019), around the globe 69 countries have laws which make such behaviour illegal. It means that when these individuals require healthcare, often they tend to withhold information about their sexuality and/or they would not seek help at all especially if doctors are seen as having discriminatory and negative attitudes. Social factors will of course play a role in forming the attitudes of healthcare professionals, especially doctors. Attitudes to alternative sexuality among doctors are related to age, ethnicity, experience and speciality [15] of the treating physician. A study of 428 medical students (50% male) in the UK showed that although most of the sample held positive views towards male homosexuality, a significant proportion (10–15%) held very negative views. It is likely that these attitudes are perhaps less negative towards female homosexuality or lesbianism. The authors of the study point out that religious views moulded negative views [16]. In many cultures, religion plays an important role in forming cultural values and thus affects attitudes towards sexual behaviour. As an aside, it is important to note that a predominantly Roman Catholic country—Ireland—elected an openly gay Prime Minister in 2017, so perhaps attitudes are changing in many countries.

It is important to explore the attitudes of medical students because these future doctors need to recognise, understand and manage their own negative attitudes while dealing with patients from sexual minorities. A recent study from India has shown that of 270 medical students who responded, 22% felt that homosexuals were neurotic, 28% thought homosexuals were promiscuous, 8% thought homosexuals posed danger to children and surprisingly 16% saw homosexuality as an illness [17] (it should be noted that the study was carried out before the decriminalisation of same-sex behaviour). In a study from Paraguay, Torres et al. [18] studied 77 medical students' attitudes and found that over a quarter (28.6%) showed negative values in their attitudes to homosexuality. More positive scores were reported if they had at least one gay friend. This raises an interesting question whether coming out to friends and peers can lead to more positive attitudes.

2.6 Clinical Issues

It is inevitable that sexual disorders will be seen in every culture, but pathways to healthcare will vary according to accessibility and explanatory models which are used to explain the illness. In many traditional cultures, individuals or couples will be seen by traditional healers or by complementary and alternative medical practitioners. Social, cultural and religious factors will play a role both in help-seeking and in therapeutic alliance. In many cultures, inability to bear children will direct individuals to gynaecologists and obstetricians rather than psychiatrists.

'John is 24 and comes from a very religious family and his family does not know that he is gay. He has presented to the clinic with delayed ejaculation which worries him when he is with his partners. After detailed history-taking, he explains that as long as he does not ejaculate, he does not need to go to the confessional'.

Identity formation is absolutely vital in understanding the underlying stressors.

Box 2.1 illustrates identity formation.

Box 2.1 Definitions

LGBT: Includes lesbian, gay, bisexual, transgender and queer/GSM (gender and sexual minorities/DSG: diverse gender and sexualities). Another broad term used is QUILTBAG consisting of queer (questioning), undecided, intersex, lesbian, trans, bisexual, asexual (allied) and gay.

Pansexual: Someone who experiences sexual, romantic, physical or spiritual attractions for members of all gender identities and expressions.

Gender Identity: Defined as the internal perception of an individual's gender and how they label themselves, and third gender is defined as someone who does not identify with traditional genders of male and female but identifies with another, separate and gender.

Transgender: A person whose gender identity and/or gender expression differs from their biological sex assigned at birth.

Cisgender: A person whose gender identity and/or gender expression aligns with their biological sex assigned at birth.

Disorders of Sex Development: Also known as intersex, a person with sexual anatomy that doesn't fit within the labels of female or male (e.g. 47, XXY phenotypes, uterus and penis).

2.7 Coming Out

Whether an individual is gay, bisexual or trans, at some stage, it is socially typical to acknowledge their sexual variation in a public way. This is defined as 'coming out'. This process of coming out is critical in the development of the self and suitable functioning both in an internal and external level. Coming out means acknowledging one's own sexual preferences to oneself and forming a sexual identify visible to others. The emotional process can occasionally be stressful, especially if the culture or society holds negative attitudes. In some cases, this may well last a long time. There are several stages in the process of coming out, and although described discretely, they may overlap. Box 2.2 illustrates steps in clinical assessment of individuals should a patient present to health services displaying distress or conflict seemingly linked to their sexual identity.

Box 2.2 Development and Assessment of Sexual Identity

1. Age, gender and reasons for presentation—why now? Why here?
2. How important are sexual orientation and identity in this presentation?
3. Developmental, family and personal history of the individual especially sexual history.
4. Corroborative history.
5. Family and culture's attitudes to the sexual variations within the individual's sexual identity.
6. Discrepancy between the individual and family or society's attitudes.
7. Dissonance between the individual and their culture regarding their orientation.
8. Perception of the role and the importance of sexual orientation to the individual.
9. Dissonance between their religious and spiritual values and sexuality.
10. Their understanding of gender identity, sexual identity and cultural identity.

Often the first person is the person themselves as they acknowledge their sexual orientation and feelings to themselves, and again this may be very strongly influenced by the family and culture. Often friends are told before family and within the family siblings before the parents. In some situations, colleagues may be told before family. In many cultures, people may well hide their sexual orientation by pretending to be heterosexual, getting their female friends to call them at work. Within a

gay or lesbian couple, the two individuals may well be at different stages of coming out, thereby creating tensions between the two of them. Case 1 describes a clinical case with a gay couple who are from different ethnic groups and discusses the problems they face in coming out.

Case Report 1

A gay couple presented to the clinic with lack of sexual interest by Anand. They had been together for over 5 years and Anand's family lived in Northeast England, whereas Anand worked in London and was living with his partner James. James complained that Anand was always tense, and after initial period of having great sex, Anand's sexual desire had withered. It appeared that Anand had not come out to his parents, and when his family visited, they had to sleep in different rooms which was affecting their relationship. James was out to his family and his employers and workplace and felt frustrated at Anand's lack of openness. In assessment, it became clear that for Anand, his family and their views were very important, but he saw his family as very conservative, religious and traditional. This is despite living and working in the UK for 30 years and the fact that he was born and raised in England. The therapist had to work with both of them in managing expectations without pushing Anand to come out to his family or others. However, over the next few sessions, it became clear that he was ambivalent about his orientation, and the pressure from his parents to get married to a girl of their choice was affecting his relationship not only with them but also with James. Eventually, he came to terms with his sexuality and told his older sister who was very supportive and she worked with Anand to tell his parents. After an initial negative reaction, his parents came to terms with their son's orientation.

Box 2.3 Clinical Assessment of Sexual Minorities

1. Check self-identification; stages of coming out (which stage they are at—who knows and who does not?). Do they see their sexual identity as causing/contributing to problems and presentation? Or is it to do with sexual behaviours?
2. Ascertain distinction across three domains: sexual attraction, sexual fantasy and sexual behaviour.
3. Assess emotional and sexual preferences of the individual whether these are same sex, mixed, opposite sex, etc.
4. Degree of comfort they feel with their sexual and cultural identities; any disparities/discomfort/disjunction?
5. Ascertain culture's attitudes to sexual variation and minorities.
6. Do they feel that clinician's attitude to their problems is negative and unsupportive?

2.8 Key Messages

- In managing people from sexual minorities, it is important that clinicians are open-minded, non-prejudicial and aware of their own strengths and weaknesses. They should have the ability to initiate a dialogue about individual's sexual orientation without appearing to be condescending or disapproving.
- Their own religious values may influence their attitudes, and therefore it is critical that they are aware and able to be professional in their judgement. Clinicians may need to be more empathic and explore the sexual functioning carefully without judgement. The clinician has a moral and ethical responsibility to be careful that their personal judgements do not colour the clinical interactions.
- Clinicians need to be aware of various sexual minorities and variations and should be willing to explore these with their patients when necessary.
- Patients and clinicians may well feel transference and countertransference related to sexual orientation. It is difficult to know whether under these circumstances the clinician should disclose their own orientation. There are both advantages and disadvantages in doing that, and the decision will depend upon individual circumstances.
- Assessment of sexual orientation and sexual function should form part of any clinical assessment at any given therapeutic encounter.
- Belonging to a sexual minority means that individuals have to follow explicit and implicit mores and norms in their minority culture but also in the majority culture which will have its own attitudes, values and nuances, and these discrepancies may cause tensions and frank conflict. Migrants or other minorities may thus face double jeopardy (see Box 2.3).
- With rapid movement of people and resources, and acculturation as a result of exposure to social media, the 'scene' is changing rapidly. The younger generation anecdotally appear to be quite relaxed about sexual and gender fluidity which raises important issues for the assessment and management of individuals who present in clinical settings.
- Societal and cultural attitudes towards sexual activity and procreation will also influence acknowledgement of sexual variation and identity as well as help-seeking. The clinicians need to be open-minded during their assessments and developing therapeutic strategies.

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Sexual Rights

3

Kevan Wylie and Michal Lew-Starowicz

3.1 Introduction

The absolute right to health allows for an appreciation of the right to sexual and reproductive health as a human right under the well-established United Nations (UN) arrangements. The Committee on Economic, Social and Cultural Rights (ICESCR) clarified the obligations of all 193 sovereign states (and 2 non-member states with observer status) of the UN to realize the right to sexual and reproductive health in a document issued in 2016. There are five components within the guidance including adopting a whole-of-life cycle approach extending beyond the traditional limits of maternal health; recognizing that the right to sexual and reproductive health is indivisible from and interdependent with all other human rights; rejecting all forms of coercive practices; promoting a gender-sensitive approach and adopting an intersectional approach [1]. The ICESCR is an international human rights treaty adopted by the UN General Assembly in 1976, and whilst it is ratified by more than 150 countries, the legally binding international obligations are limited to those states that have ratified the treaty.

The stance to eradicate intersectional discrimination is crucial as this will avoid adversely affecting some groups of people disproportionately. These may include but are not restricted to people in poverty especially women, people with physical

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or mental disability, refugees and immigrants to a country, ethnic minorities, adolescents, LGBTQI persons, and those living with HIV.

3.2 Background

Reproductive health is regarded as the freedom of an individual to make informed, free and responsible decisions and to be able to access a range of reproductive health information, goods, facilities and services to enable the individual to make those informed, free and responsible decisions about their reproductive behaviour. Sexual health is defined by the World Health Organization as a state of physical, emotional, mental and social well-being in relation to sexuality.

A recent study reported that only 27 nations had enshrined the right to sexual and/or reproductive health into the domestic constitutional laws. Seven nations had adopted a restrictive approach to the right. Of the 27 nations enshrining rights, the provisions most frequently encompassed respect for one's sexual health and family planning decisions, the protection of sexual health and the provision of reproductive healthcare and family planning services [2]. Regrettably, most of the references within national constitutions are negative by expressing the right to not be the object of abuse or exploitation in a corrective sense of combating violations rather than stating positive requirements. Only five constitutions refer explicitly to the right to make free and responsible decisions about one's sexual and reproductive health. These countries are Brazil, Portugal, Ecuador, Paraguay, and Venezuela.

3.3 The WAS Declaration of Sexual Rights

The World Association for Sexual Health (WAS) is a multidisciplinary, worldwide group of scientific societies, non-government organizations (NGO) and professionals in the field of human sexuality that promotes sexual health throughout the lifespan and throughout the world by developing, promoting and supporting sexology and sexual rights for all. The WAS released an update to the original 1997 WAS *Declaration of Sexual Health* in 2015.

Central to the document is the same assertion described by the UN that sexual rights are human rights that are pertaining to sexuality. These have been delineated by WAS as 16 distinct sexual rights and these are listed in Box 3.1.

Box 3.1 The 16 WAS Human Rights Pertaining to Sexuality

1. The right to equality and non-discrimination
2. The right to life, liberty and security of the person
3. The right to autonomy and bodily integrity
4. The right to be free from torture and cruel, inhuman or degrading treatment or punishment

5. The right to be free from all forms of violence and coercion
6. The right to privacy
7. The right to the highest attainable standard of health, including sexual health, with the possibility of pleasurable, satisfying and safe sexual experiences
8. The right to enjoy the benefits of scientific progress and its application
9. The right to information
10. The right to education and the right to comprehensive sexuality education
11. The right to enter, form and dissolve marriage and other similar types of relationships based on equality and full and free consent
12. The right to decide whether to have children, the number and spacing of children, and to have the information and the means to do so
13. The right to the freedom of thought, opinion and expression
14. The right to freedom of association and peaceful assembly
15. The right to participation in public and political life
16. The right to access to justice, remedies and redress

The recently published Technical Document provides substantial supplementary information and materials for the interested reader to support the updated 2015 *Declaration of Sexual Rights* [3]. The document has brought the WAS to an unparalleled place in being able to state categorically that *Sexual Rights are Human Rights*. This is much more than a bold statement. It is a position that we can champion and for which there is a rich and evolving evidence base that is shared within the technical document.

Kismodi et al. (2017) note that the 2015 Declaration and the related Technical Document considers and states the extent and strength of the formal recognition of human rights standards related to sexuality and sexual health by international, regional and national human rights, judiciary and legislative bodies. They highlight how the increased recognition, understanding and acceptance of the role of human rights in people's lives can create further opportunities for comprehensive sexual health programmes to improve health and well-being, in general, and sexual health and well-being. Of crucial importance is the topic of discrimination that manifests itself in inequalities that are a strong predictor of the burdens of poor health, including sexual health. Such discrimination and inequalities have been reported to manifest through differential access to services, including sexual health services and resources, social benefits, education and employment [4, 5].

The authors go on to state that the consequences for health and well-being are significant, with increased exposure to sexually transmitted infections and HIV, unwanted pregnancy, sexual dysfunctions and mental health morbidities. Such discrimination can also result in socio-economic deprivations such as homelessness and poverty and exclusion from social benefits and health services that are essential to the maintenance of health in general and specifically to sexual health. Such

exclusions can lead to ill health and socio-economic hardship and constitute a violation of the rights to non-discrimination, privacy and the highest attainable standard of health [6].

3.4 Unmet Needs and Clinical Scenarios

Human and sexual rights extend extensively into the delivery of all social and healthcare settings. Some at-risk populations have been the area of recent examination. One example is addressing the rights of older people, where the authors report an absence of positive or celebratory discourses around older people's sexuality as particularly striking. Using an adaptation of the Declaration of Sexual Rights from the World Association of Sexual Health, the book provides readers with an innovative and evidence-based framework for achieving the sexual rights of older people [7].

Other key groups require consideration, and the needs of individuals with mental health issues are considered within in more detail. Whilst all 16 rights described by WAS are not necessarily all directly applicable within healthcare settings, there are several that have reference, and these will be discussed in greater detail in this section.

People with mental disorders must cope both with the effects of their mental illness and with social exclusion and social prejudices [8]. The scientific concept of stigma of mental disorders was clearly delineated by Erving Goffman in the last century. This profound analysis explains the complex interplay between the societal attitudes towards people who are perceived as being "not normal", the stigmatized person's feelings, coping strategies, projections and the relationship to the stigmatizing environment [9]. Individuals suffering from mental illness are commonly stigmatized and discriminated against in their personal, social and occupational lives. The failure to acknowledge the sexual rights of people with mental health issues can often be a consequence of discrimination by relatives and other key people within the domestic environment, as well as the consequence of bad practice by the educational system, social care systems and healthcare providers. The most commonly neglected sexual rights of people with mental disorders include the right to equality, to autonomy and body integrity, to be free from sexual violence and coercion, to the possibility of pleasurable and safe sexual experiences, to sexual education and to form relationships (including marriage).

Some of the sexual discrimination issues of persons suffering from specific mental disorders will be described more directly in chapters dedicated to such disorders. Below we present some general issues related to the social judgement concerning the sexuality of people with mental illness and some case presentations that illustrate both violations of sexual rights and challenges related to respecting these within a clinical setting.

The prejudices regarding sexuality and relationships of people with mental illness are influenced by many stereotypes within society. People suffering from

schizophrenia and other psychoses are the most likely to be affected. Here are some of the most common examples:

- Individuals with mental illness are often perceived as dangerous and unpredictable. The media often strengthen this stereotype by disseminating reports of acts of violence (including sexual assault) committed by people with mental illness. In reality, they are much more likely to become a victim of sexual abuse than be a perpetrator. In a meta-analysis of 23 retrospective studies on various forms of abuse in childhood reported by people suffering from psychotic disorders (n = 2017), results found that 26% had experienced sexual abuse, 39% physical abuse and 34% emotional abuse [10]. In comparison, the prevalence of child sexual abuse in the general population is estimated to range from 0.6% in high-middle-income countries to 2.4% in high-income countries and physical abuse from 10.8 to 5.3%, respectively [11]. Hacioglu et al. (2014) found that 94.3% of women with schizophrenia experienced at least one and 88.4% experienced multiple traumatic events during adulthood with 24.3% reporting being actual victims of sexual abuse [12].

  According to the large cohort data from the National Crime Victimization Survey conducted in the USA in a group of 32,449 participants, in comparison with 936 clients of agencies providing psychiatric services, people with severe mental illness were 17.2 times more likely to become a victim of rape or sexual assault than people in the general population [13].
- Individuals with mental illness are often regarded as unable to sympathize or fall in love. This stereotype results in lessening the ability or even right of sufferers to build romantic relationships and justifies rejecting them as potential partners. Psychiatric symptoms such as blunted affect, social withdrawal, passiveness or contrary carefree and disinhibited or hostile behaviour may easily be misinterpreted as one's personality characteristic.
- Individuals with mental illness are perceived as unreliable. The tendency to keep social distance decreases with the level of intimacy. As many people express compassion and respect towards the mentally ill and would accept living in the same neighbourhood or meeting together during leisure activities, at the same time, they would not be likely to employ them or have them as a close family member like son- or daughter-in-law. In a survey conducted in 27 countries, nearly half of people with schizophrenia reported discrimination in their personal relationships, and up to two-thirds anticipated discrimination while applying for a job or seeking a close relationship [14].

Often, because of social stigma, people suffering from mental illness are likely to withdraw from social interactions to avoid further rejection. Their social networks often become restricted to close family members and other people who have a mental illness, often whom they've met in the hospital or other mental health settings. Partners of people suffering from mental illness are also often stigmatized. Goffman (1963) described it as "courtesy stigma" which transfers from a stigmatized person to other people connected through close relationships [9]. On the other

hand, social stigma of mentally ill people can be most effectively reduced by being in regular contact with them and knowing the real prevalence of these health conditions. It is estimated for developed countries that every third (in Europe) or second person (in the USA) will experience an episode of mental disorder during his/her lifetime [15]. Realizing that being surrounded by people who had, have or will have a mental health concern and understanding the probability of oneself being affected can decrease the fear and raise the awareness and appreciation of common needs of all the people regardless of current mental health.

Another important issue is the impact of psychopharmacotherapy on sexual functioning. This topic will be described comprehensively in another chapter, so we restrict our considerations to patients' sexual rights, specifically *the right to the highest attainable standard of sexual health with the possibility of pleasurable and satisfying sexual experiences* as well as *the right to information* including possible side effects of medications prescribed. Pharmacotherapy is often necessary in the treatment of mental disorders both for security and for improving quality of life. On the other hand, psychotropic medication-related sexual side effects are a common reason for treatment discontinuation. To ensure respect of the sexual rights of their patients, physicians must inform patients about any possible sexual side effects and pay appropriate attention to complaints about detrimental effects on sexual satisfaction that may occur during treatment. Wherever possible, medication type and dosage should be modified to alleviate any reported drug-related sexual dysfunction.

Admission to a mental health institution due to exacerbation of a mental disorder can make the obligation to respect the sexual rights of a patient particularly challenging to the multidisciplinary care team as described in the following case presentation:

Case Report 1

A 26-year-old married woman with bipolar disorder was involuntary admitted to the inpatient unit because of the relapse of acute psychotic and behavioural symptoms (delusional beliefs, impaired thinking, agitation, sexual disinhibition and behavioural disorganization). She was under constant observation including use of the bathroom and whilst dressing that resulted in aggressive reactions from the woman towards the nursing staff. During her stay in the hospital and despite the implementation of safety procedures, she reported several sexual encounters with several men in the ward. These included cuddling, oral sex and at least one episode of vaginal intercourse that was interrupted by the medical staff.

Commentary

In this case, the sexual rights (including *the right to autonomy and being free from all forms of coercion*) of a person suffering from severe mental illness were restricted due to specific health-related circumstances, especially the protection against potential self-harm or aggressive behaviour towards other patients or staff. Despite this, the system of care failed to protect her

from uncontrolled sexual behaviour. At any specific moment, her sexual experiences might have been perceived as "pleasurable or satisfying" but are definitely not considered to be "safe" (see point No.7 of the Declaration of Sexual Rights). The woman's sexual attempts were also against the internal regulations of the inpatient unit and might be against the sexual rights of other patients who encountered sexual contacts with her by themselves being incapable to give valid and informed consent. It could be the responsibility of the hospital to investigate any sexually transmitted infections transmitted to any of the patients who engaged in any form of sexual contact—including for the woman. All the patients involved who were not capable of making informed decisions at the time could potentially claim for a redress from the healthcare provider.

Another important issue is the respect of the right of individuals with chronic mental illness to marry and procreate. In the case of planned parenthood, the information on the risk of developing mental disease by an offspring should be available for the patient. The risks and benefits of stopping, changing or continuing psychotropic medication during the pregnancy should also be explained and documented between a mental health physician and the patient (and her partner). As an example, specific advice and communication materials from the government are now in place in some countries for women receiving valproate during pregnancy for bipolar disorder (or epilepsy) [16].

Case Report 2

A long-standing couple of consisting of a 32-year-old woman and 34-year-old man were both receiving treatment for schizophrenia and were both in stable remission for at least 4 years. They decided to marry, and upon application to the registry office for a marriage certificate, they were informed that they are not allowed to do so because of the presence of a severe mental illness that impaired judgement for both. They sought advice from a psychiatrist about the relative risk of any child developing schizophrenia if they should decide to try to conceive.

Commentary

This is a clear example (and, unfortunately, not altogether uncommon) of wrong practice by a registry officer who did not follow contemporary regulations. The officer discriminated against both persons who were suffering from mental illness and failed to respect their human and sexual rights. It is likely that the officer did not understand the nature of the condition which, during stable remission, does not affect the capacity of decision-making. According to legal regulations in many countries, it is usual practice that mentally unwell persons may marry if they are not mentally incapacitated.

3.5 Key Message

Sexual rights as human rights impact on every process within healthcare settings starting with the method of assessment and diagnosis, care programming, the admission into clinical care settings and the types of interventions and procedures offered – and sometimes imposed on individuals because of mental illness and impaired capacity – through to discharge progression that is offered to patients. Education and raised awareness for staff is crucial as a first step in raising awareness of addressing and undertaking care with due regard to such obligations. Assessment and sensitive discussion with patients and service users will allow for open dialogue about the impact of such. Recognition that naivety, uncertainty by clinicians and potential disengagement by management and those offering direction may be barriers and lead to potential difficulties for ensuring well-grounded and safe patient-clinician interactions is necessary. Regular supervision of clinical practice and clearly stated governance procedures are essential to ensure these sexual and human rights are respected and applied consistently throughout healthcare settings.

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Ethical Issues in Clinical Sexology

4

Daniel N. Watter

For every complex problem, there is an answer that is clear, simple, and wrong.

H.L. Menkin

Nothing is so rewarding as a stubborn examination of the obvious.

Oliver Wendell Holmes

With all of the recent advances in sexual medicine, it is noteworthy that the ethical implications of sexual medicine practice have received so little attention [1, 2]. Even in cases in which ethics and clinical sexology have been discussed, the level of discourse has been disturbingly rudimentary and reductionistic. The purpose of this chapter is to explore in some depth the ethical issues currently facing the field of clinical sexology. Issues to be discussed will include ethical theory and decision-making as applied to some of the recent advances in the field. It is posited that it is the ethical obligation of each practitioner to regularly examine and critique even the most fundamental aspects of our practice of clinical sexology.

4.1 Ethics and Clinical Sexology: Some History

At present, many clinical sexologists think of ethics as being a list of rules, or a code, which outlines what behaviors can, and cannot, be engaged in when working with patients. Ethics articles, books, lectures, and workshops focus on the importance of having informed consent forms signed, not engaging in fraudulent billing

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practices, not having sex with patients, and not practicing beyond the bounds of one's professional competence. While these are surely important ethical provisions, such admonitions form a rather low bar for ethical practice. Such cautionary comments should represent the *minimum* standard for ethical competency, yet many practitioners are instructed that these warnings embody the essence of ethical practice. As a result, many clinical sexology practitioners conflate ethics with risk management. Too many of today's ethics workshops and trainings are geared more toward minimizing the chances that the practitioner will be sued successfully, rather than promoting a high standard of ethical practice that ultimately benefits patients, clinicians, and the profession of clinical sexology. Indeed, the case could be made that many of our purported ethics workshops and trainings encourage clinical sexology practitioners to think more like attorneys than as clinicians.

Radden and Sadler emphasize the importance of the development and enrichment of the clinician's character in promoting sound ethical practice [3]. They, along with Beauchamp and Childress, are strong advocates for trainings that encourage the cultivation of personal traits such as honesty, integrity, courage, fairness, warmth, trustworthiness, respect, nonmalevolence, beneficence, justice, truthfulness, caring, and compassion in the preparation and training of clinicians for ethical behavior and practice [4]. Viewed through such a lens, ethics become more about striving or aspiring to be the best practitioner one can be in service of the patients we treat, as opposed to being the followers of a list of proscribed instructions.

Interestingly, sexology was, at one time, less focused on the issues of compliance and more attentive to the ethical considerations of where the field of sexological science was heading. In January 1976, William Masters, Virginia Johnson, and Robert Kolodny of the Reproductive Biology Research Foundation (later renamed the Masters and Johnson Institute) organized and sponsored a two-day meeting that aimed to identify, discuss, and debate the ethical issues that were thought to be specific to those practicing sex therapy and research [5, 6]. At this meeting, issues such as informed consent, confidentiality, and professional boundaries were certainly discussed, but the focus was on those issues that may be distinctive and sensitive to the nuances of sexual medicine practice.

William Masters was a rather strong voice in insisting that there were, indeed, ethical issues that separated sexual medicine from other areas of medicine. He asserted that because sex is such a value-laden subject, it required an extraordinary amount of attention regarding the proper and ethical care of patients. Masters believed that because sexuality in general and sexual medicine in particular are so heavily influenced by the morals and the values of its practitioners, the ethical practitioner of clinical sexology must continuously, vigorously, and robustly examine and debate the ethical issues related to the interventions the field may choose to adopt. This means that the ethical practitioner examines, questions, reexamines, and refines even the most widely accepted practices of sexual medicine in order to consider their ongoing relevance and ethical repercussions. His words are no less germane for present-day practice, yet rarely has this mandate been carried out.

4.2 Principlism

As mentioned earlier, the vast majority of our current ethical discussions have centered on legal and risk management concerns, as opposed to those that consider the best care of our patients. It is of note that this was not always the case. Until about 1800, professional ethics had little to do with formal codes of conducts. Specific mention of the dos and don'ts of professional behavior was seen as unnecessary. According to Baker, ethical behavior was more about character, honor, and virtue [7]. It was generally assumed that practitioners would behave professionally and ethically in order to preserve their professional integrity and reputations. Unfortunately, such a presumption led to a lack of standardization of what would and/or would not be considered ethical practice, and conflict within disciplines soon emerged. This resulted in the creation of professional associations and organizations that eventually began to create codes of ethics and rules of conduct in order to promote consistency among a field's practitioners [1].

Despite the fact that standards of ethical behavior were developed by groups of professionals, problems with objectivity and agreement were still apparent. Ethics is intimately intertwined with morals and values. As a result, what is considered ethical behavior is often heavily influenced by the culture and attitudes of those making the determinations. This is especially true in the area of clinical sexology, and we are reminded by Charles Moser that what are considered to be acceptable sexual interests vary across cultures and also change trans-historically [8]. Moral psychologist Jonathan Haidt adds that we are rarely as rational as we like to think we are. Morality and moral decisions both "bind and blind" [9]. That is, groups often are formed by individuals gravitating toward others who share a set of morals and values. However, such an allegiance often blinds us toward those morals, values, and standards that differ from our own. Such is often the case in religion and politics. So too is it often the case in deciding what is sexologically "ethical" or "healthy" as well.

Given that morals and values are so subjective and are so heavily influenced by culture and era, how can one make ethical decisions that are sound, reasonable, and inclusive? Beauchamp and Childress believe that ethics in healthcare are best made when informed by an appreciation of four powerful principles [4]. Their approach, known as the Four-Principles Approach, or Principlism, has formed the basis for ethics codes for most all of the healthcare disciplines. The Four Principles function as general guidelines used in the formation of more specific rules of conduct.

The Four Principles Identified by Beauchamp and Childress are:

1. Respect for autonomy (respecting and supporting patients' right to make autonomous decisions regarding their healthcare)
2. Beneficence (having a moral obligation to act for the benefit of our patients)
3. Nonmaleficence (avoiding causation of harm)
4. Justice (the fair distribution of benefits, risks, and costs)

Each of these principles, individually and collectively, must be considered and balanced in the pursuit of ethical decision-making. Unfortunately, it is beyond the scope of this chapter to fully explore Principlism and its nuanced treatment of ethical decision-making. For a more complete discussion and analysis of the four principles, the reader is directed to Beauchamp and Childress' text listed in the reference section of this chapter. For the purposes of this chapter, however, let's turn to one of the current ethical dilemmas currently facing the field of clinical sexology and apply the Four-Principles Approach.

4.3 The Medicalization of Sex

Perhaps the most important area for ethical consideration for clinical sexologists concerns the potential consequences of the interventions utilized in the treatment of sexual problems. Most clinicians will be primarily concerned with the effectiveness (i.e., an intervention's ability to ameliorate the presenting problem) of a given treatment strategy. The ethicist, however, takes a more nuanced view of the impact that a particular intervention may have on a patient's life and well-being. Specifically, the ethicist is concerned not only with efficaciousness regarding symptom removal but also whether a not a particular intervention is actually "good" for the patient. Ethicists would remind clinicians that the *law of unintended effects* must always be contemplated. Even though our interventions are designed to be helpful, there are often unexpected, or unintended, consequences that may occur. Such consequences may be positive or negative, but regardless need to be anticipated. Concerns regarding medical interventions and conceptualizations of sexuality and sexual functioning provide fertile ground for the unexpected.

A search of the contemporary sexual medicine literature clearly indicates that medical interventions have dominated the clinical sexological discourse in recent years. The advent of oral medications (i.e., sildenafil citrate) for the treatment of male erectile dysfunction has certainly been welcomed for offering a wider range of treatment options to our patients. However, Szasz, Tiefer, and Bancroft have all separately cautioned that an increased emphasis on medical treatments tends to lead to a mechanistic, reductionistic, and overly simplistic view of human sexuality [10–12]. Many clinical sexologists would suggest that these admonitions have proven to be prophetic. Indeed, while the advent of medical interventions has produced positive outcomes for many patients, there have been numerous other patients for whom this discovery has left less well off. Countless numbers of those who have not benefitted from medical interventions have been lost to the clinical sexologist. Such patients are often the primary focus of the clinical ethicist. While there may be significant overlap between the lens of the clinical sexology clinician and the clinical sexology ethicist, there are also several important differences. Such differences can be seen in a close examination of the introduction and popularity of oral medications for the treatment of male erectile dysfunction.

Clinical sexologists will recall that in 1998 the introduction of sildenafil citrate was met with great enthusiasm by clinicians and patients, alike. One of the primary

benefits of this medication was that many previously reluctant men were encouraged and emboldened to seek treatment for their erectile difficulties. Indeed, not only had many previously hesitant men elected to consult with their physicians regarding their sexual concerns, but also many men finally found some relief from a symptom that had frustrated them for years. Such a response resounded with the pharmaceutical industry, and the search was on for other drugs that would also provide similar reprieve from long vexing sexual problems. However, all progress comes with a price. Paul [13] expresses apprehension in commenting:

> …the increasingly rapid translation of technology to the public results in access to technology before its consequences can be fully recognized. Coupled with what are often less-than-conclusive claims about the benefits and about who will gain those benefits, these issues pose additional challenges to ethical decision making (p.17).

Paul is correct in his caution that new technology in healthcare intervention is often introduced without a full understanding of the consequences, both intended and unintended, that accompanies new advances in treatment. While the expected benefits of sildenafil citrate were perhaps obvious, and the primary negative consequence was thought to be the cost to the patient, the unintended consequences were vastly underappreciated. It is precisely these unintended consequences that the sexology ethicist attends to. An application of the four principles will illustrate the nuanced concerns of the ethicist.

The reader will recall that the first principle is the principle of autonomy. Autonomy refers to the recognition that clinicians should recognize and respect that all patients should have the right to participate in decision-making as it pertains to their healthcare. Giving patients options regarding the treatment(s) they choose to receive is generally seen as a positive strategy. Some with sexual problems may choose psychotherapy/sex therapy, while others may choose a medical intervention (penile injection, penile prosthesis, vacuum device, oral medications, etc.). Still others may choose alternative approaches such as nutritional counseling, acupuncture, hypnosis, etc. So long as the clinical sexologist thoroughly outlines the risks and benefits of a particular intervention, he/she has ethically discharged the responsibility of respecting the importance of including the patient in their healthcare decisions and choices. Therefore, even though the patient may choose an intervention that might not be the most favored of the clinician, so long as the patient is a competent adult, he or she should have strong input into the treatment decision and process. However, while this ideal might be met with little resistance, healthcare decision-making is rarely this clear-cut, as we will see below.

The second principle is that of beneficence. Beneficence refers to the moral obligation of healthcare practitioners to act for the benefit of our patients. However, suppose what the clinician sees as in the best interest of the patient is in conflict with what the patient desires? Do patients, who do not possess the depth of knowledge and expertise of the clinical sexologist, necessarily know best about treatment strategies and interventions? Ethically, the fact that a given intervention may adequately address a presenting problem does not necessarily mean that the intervention is actually good for the patient and does not create some unintended harm.

It is in the area of beneficence that the law of unintended effects may be most clearly observed. Often our attempt to be helpful to our patients results in an unexpected negative effect. Marino warns that all progress paves over some bit of knowledge or weakens some valuable aspect of practice [14]. For example, the ease of writing a prescription for erectile dysfunction has resulted in many physicians spending less time evaluating and talking with their patients about their sexual difficulties. As a result, physicians have become increasingly distant from their patients, and a valuable aspect of the physician/patient relationship is at risk of being lost to the ease of technology [15]. This creates a profound ethical dilemma in the delivery of ethical and efficacious patient care. The questions must be asked, "Are we helping or limiting our patient's sexual health?" On the one hand, it is tempting to assume that a pill that restores erectile functioning fulfills our obligation to the patient. However, what are the unintended consequences? Do our abbreviated assessment and evaluations overlook other serious health problems that may be contributing to our patients' erectile problems? Are we giving to short shrift to the possible psychological conflicts the patient may be experiencing that result in the erectile problems? Have we neglected to consider the impact the change in functioning may have on the patients' overall well-being? How about the impact of erectile restoration on the partner and the relationship? Will this change the relationship dynamic in a positive or negative manner? Our truncated discussions with our patients about their sexual lives may, indeed, lead to a more problematic outcome than the practicing clinical sexologist may realize. In essence, our efforts to respect patient autonomy and behave in a manner that is beneficent may, indeed, result in the creation of a harmful effect and thus conflict with the third principle, nonmaleficence.

Nonmaleficence refers to the time-honored dictum of *do no harm*. However, keeping in mind the law of unintended effects, harm cannot always be accurately anticipated. For example, what creates harm may vary from person to person. That is, what one person considers harmful, another may consider helpful. Here we see the importance of context and culture and the importance of the clinician having a thorough understanding of the patient's morals, values, and desires.

One of the more insidious examples of how attempts to be beneficent and respect autonomy can actually create harm is with the prescribing of oral erectile dysfunction medications for the elderly. At first glance, assisting aging men to find restoration of their age-compromised penile functioning seems like a benign, even advantageous, intervention. But what is the implied, underlying message we are sending to our patients? On the one hand, we are reinforcing for our aging patients the importance of maintaining a satisfying sexual life. However, on the other hand, we run the risk of sending the message that "real" sex is the sex of youth. We may be inadvertently engaging in a collusive effort with our patients to deny the reality of the aging process and promote the assumption that youthful sex is desirable, whereas age-appropriate sexual functioning is not. While some may not see the danger in advocating interventions that make one feel more youthful, others may recognize the potential harm in painting an unrealistic (and perhaps unfair) picture

of healthy (yet aged) sexual functioning (see Chap. 29 for more information about late life sexuality).

Yalom and Watter each note additional concerns with the encouraging of the youthful sex model [16, 17]. Their unease stems from the belief that American culture places an inordinate value and priority on the forestalling of physical decline. Such an attitude is likely rooted in an existential terror regarding aging and death. While the autonomous person can certainly choose youth-inspired interventions such as cosmetic surgeries or medications that aim to restore erectile functioning to a more youthful state, clinicians must consider whether such interventions have the potential for harm. Specifically, rather than encouraging the notion that sexual functioning need not change in the face of the reality of aging bodies, would we not be doing a greater service to our patients by helping them adjust to the realities of aging and a greater acceptance of the beauty and normalcy of the natural aspects of the aging process? Perhaps as clinical sexologists, we have an ethical obligation to assist our patients deal with the realities of existence and nudge them in the quest to find pleasure and enjoyment in the aging process and the natural course of events. Educating our aging patients regarding the normal, expected, and developmentally appropriate changes in sexual functioning may be one of our most important ethical duties to this community. Aging, and its resultant sexual changes, is not the enemy; rather it is the basic evolution of the life cycle. Unfortunately, education alone will not likely make the progression into aging easier for many of our patients. The clinical sexologist may need to assist the aging patient deal with their sense of loss, anger, and/or grief as they say farewell to their youth. It is only through such a process of dealing with these complex emotions that one can successfully and joyfully move onto the later stages of life and revel in the predictable vicissitudes that the sexuality in later life offers.

This does not mean, of course, that the clinical sexologist makes such decisions and determinations for the patient, but we may be doing a disservice to our patients if we do not discuss these concerns with them.

Justice, the fourth principle, is often the least examined and discussed. The principle of justice refers to the fair distribution of risks, benefits, and costs of treatment. Low-cost clinical sexological services are very difficult to come by, at least in the United States and many European countries. In addition, many insurers limit or outright deny coverage for sexual pharmaceuticals. One of the interesting philosophical and ethical debates relates to the issue, "What are our sexual rights?" The World Health Organization asserts:

> The application of existing human rights to sexuality and sexual health constitute sexual rights. Sexual rights protect all people's rights to fulfill and express their sexuality and enjoy sexual health, with due regard for the rights of others and within a framework of protection against discrimination [18].

Ethically, the principle of justice would suggest that all humans have the right to be a sexual being and that includes being able to express their sexuality as they wish, and to enjoy sexual health, without discrimination. But, does this mean that all

men have the right to erections? Does it mean that governments or insurers have the obligation to provide medications that restore erectile functioning? For decades, clinical sexologists have argued that there is more to sex than "hard penises and moist vaginas." There has been a long-standing belief that sex should not be goal oriented and performance focused. Rather, sex should be more "pleasure oriented." Does this, then, suggest that the proposition that sexual aids should not be considered and promoted is the most philosophically consistent and ethically correct with the fundamental beliefs of our field? If we are to be consistent with our long-established declaration that appeals for a moderated view of the importance of sexual function, and a deepened appreciation for the importance of pleasure, are we sending a mixed message if we argue that the making available of sexual pharmaceuticals is a matter of justice? Such are the conversations that clinical sexologists need to engage in in order to promote ethical substance.

4.4 Case Report

Case Report 1

Walter (not his real name—identifying details have been altered to preserve confidentiality) was a 58-year-old married man, who had undergone radical prostatectomy 3 years before our meeting. Much to his dismay, he never regained erectile functioning following surgery. He tried oral medications without much success and found penile injections to be intrusive and unsatisfying. As a result of not being able to function sexually as he would like, Walter retreated from all affection with his wife. When queried about this, his response was "Why start something I can't finish?" Clearly, Walter suffered extreme embarrassment and frustration due to his erectile loss, and this created considerable distress for his wife and his marriage. Walter was angry that he wasn't one of the fortunate men to undergo prostate cancer treatment and emerge with intact erectile ability. He also admitted feeling dreadfully broken and didn't see how he would ever again be able to view himself as a fully functional man. He further described that even if he were able to regain erections by means of some assistive device, he would be unhappy because he would know that he was unable to sexually function autonomously. A therapy that focused solely on Walter's presenting symptom (erectile dysfunction) would miss the underlying existential anguish that he was suffering. Therapy for Walter, and later with Walter and his wife, consisted of a deep exploration of his fears of death, isolation, and loss of ability to connect with his wife. Once these concerns were adequately addressed, Walter was able to find meaning and connection within the constraints of his physical limitations.

In the case above, the ethical considerations for the clinical sexologist are many. Early attempts were directed at resolving Walter's presenting symptom of erectile insufficiency. However, such interventions were unsuccessful and

even undesirable to Walter, in that he was insisting on the restoration of autonomous erectile functioning. The ethical clinical sexologist needs to consider each of the four principles in addressing Walter's situation. His autonomy was comprised in that his treatment was not sensitive to his desires. Granted, Walter's wants could not be realized given his surgical status, and the clinical sexologist may need to consider the principle of beneficence in discussing with Walter whether the pursuit of his stated aspiration was actually "good" for him or in his best interest. Not fully attending to Walter's distress, grief, feelings of loss, anger, humiliation, and fear may actually have increased Walter's sense of angst and futility and created additional stress in his marriage. Therefore, it is likely that the early symptom-focused interventions created more harm than good for Walter. Finally, Walter needs to be encouraged to find alternate means of sexual satisfaction and intimate connection. His right to be sexual is compromised if he blindly pursues a goal that, in actuality, decreases his ability to enjoy sexual pleasure and sexual health.

4.5 Ethical Challenges in the Area of Forensic Sexology

One of the rarely examined areas of sexology is the realm of forensic sexology. When discussing forensic sexology, we are referring to the application of sexual science to issues arising from criminal, civil, and/or administrative legal matters. Examples of such cases would include situations in which someone has been arrested for a sexual crime or offense, engaged in professional sexual misconduct, committed acts of sexual harassment, and/or an accident or medical procedure that has resulted in an injury to the genitalia or sex drive. As a result, many clinical sexologists have been sought out to function as forensic clinicians or evaluators, even though they may have little or no training in these highly specialized areas of practice [19].

One of the greatest challenges in the area of forensic sexology is for the sexologist to understand the substantial difference between the mindset of a forensic sexologist and the mindset of the clinical sexologist. Most mental health professionals are trained in the art of psychotherapy and psychotherapy case conceptualization. While such training makes for excellent clinicians, an entirely different set of skills and ethical considerations are required for the forensic sexologist. For example, when working with those who have committed crimes of a sexual nature, issues of patient autonomy are clearly compromised. Much of the reason for this relates to the different understanding of who exactly is the "patient," or the party to whom we are ultimately responsible. For the clinical sexologist, this may seem rather clear and straightforward. However, for the forensic sexologist, the issue is far more complex. The forensic sexologist may be doing an evaluation on behalf of the Court, or an attorney. In such cases, confidentiality may need to be waived by the examinee. Therefore, it is incumbent on the ethical practitioner to be sure that the limits of

confidentiality are clearly explained to the examinee before the examination is to begin. Similarly, those who may be providing clinical sexological services to those incarcerated offenders are not necessarily looking to advance the choices, or autonomy, of the forensic patient, but rather the laws and mores of the society in which they exist [19].

An additional area of forensic sexology is the assessment and management of professional sexual misconduct. Professional sexual misconduct refers to sexual and/or romantic relationships that occur between clinicians and their patients. While it is generally acknowledged that sexual feelings in sex therapy practice are not uncommon, clinicians have often reported that they feel poorly trained to manage such feelings, whether they be their own or their patient's [19]. Other than receiving strong admonitions against the inclination to act on those feelings, many clinicians have had little guidance in the therapeutic practices required to safely handle such situations. As a result, the sexologist may feel woefully unprepared as to how to respond in a clinically competent manner when faced with such situations. This is further complicated by the fact that many sexologists (and other clinicians) engage in such boundary violations during times of personal crisis that often leaves them in positions of vulnerability and risk, and they are thusly in a compromised position of being unable to objectively assess the dynamic that is occurring within the treatment setting. Consider the following case:

Case Report 2

Dr. Jones, a male heterosexual psychiatrist, is currently treating Ms. Abernathy, a female heterosexual patient that he finds quite attractive. The therapy is proceeding quite well until Ms. Abernathy expresses her great admiration and affection for Dr. Jones. Dr. Jones is currently dealing with his own marital crisis that has been precipitated by his recent substantial gambling losses. Due his own emotional instability and subsequent vulnerability, Dr. Jones is unable to see Ms. Abernathy's transference for what it is, as well as analyze and understand his own countertransferential reaction. Dr. Jones tells Ms. Abernathy that he has similar feelings for her, and a sexual relationship begins. This relationship continues for approximately 6 months before Dr. Jones experiences a crisis of conscience and decides the relationship is inappropriate, must end, and Ms. Abernathy needs to be referred to a different psychiatrist. Ms. Abernathy, however, sees this as a personal rejection, and it triggers her fears of abandonment, which was a focus of the therapy. In her rage at Dr. Jones, she decides to file a complaint with the Board of Medical Examiners.

Situations such as the above happen all too often in the practice of clinical work. In order to practice ethically, the clinical sexologist should consider good self-care in order to minimize the likelihood of being overwhelmed by personal distress that

may negatively impact good patient care. Examples of good self-care for the clinical sexologist would include, but not be limited to, participating in ongoing peer supervision groups, engaging in personal psychotherapy, and maintaining healthy work/life balance.

While the vast majority of practitioners in clinical sexology are in agreement that sexual/romantic relationships between clinicians and current patients constitute a breach of professional ethics and should be prohibited, there is less agreement about the propriety or advisability of such relationships with *former* patients. There are, however, many seemingly cogent arguments against the development of sexual relationships with anyone who was at any time a patient. For example, even after treatment has ended, patients may still be vulnerable due to transference. This brings into question whether or not they would be in a position to give a fully informed consent. Additionally, the possibility of a relationship at some later date has the potential to contaminate a current therapy and will further negate the possibility of a return to therapy with the clinical sexologist should the need arise at some future point.

However, the above primarily represent the *clinical* rationale to suggest that such relationships may be ill advised. However, if we view this through an ethical lens, the argument becomes more complicated. For example, it has been proffered that our concern for the potential for "harm" (the principle of nonmaleficence) may be overstated [19]. The argument of harm, while emotionally appealing, lacks data to support or demonstrate that such harm actually exists. What type of harm are we referring to? What is the incidence of harm in such relationships? Cannot a thoughtful clinician reasonably ascertain if a former patient is truly in a vulnerable position that would make such a relationship problematic or harmful for the patient? These are all reasonable questions and concerns, but the fact remains that we currently have little to no empirical data to give us an indication of the accuracy of the claim for harm. Therefore, if we cannot demonstrate harm or damage, are we not interfering with patient autonomy should the patient decide to take the risk and choose to engage in a sexual/romantic relationship with a former therapist? Engelhardt [20] has asserted that patients who are competent adults should be allowed to make decisions, even if those decisions may have tragic consequences. He is of the opinion that medicine's interference with such freedoms would be a tragedy greater than any negative outcome the patient might suffer. As such, is our prohibition against such relationships actually more paternalistic than truly beneficent?

Perhaps the most coherent, comprehensive, and defensible rationale for the prohibition against sexual/romantic relationships with patients, current or former, is the ethical imperative to ensure that the public feels confident in seeking the services of the clinical sexologist. It is true that there are instances in which sexual/romantic relationships between therapist and patient proceed without incident or injury, but we also know that the potential for, and the reality of, abuse clearly exists. There are far too many patients who have been harmed by such relationships. Wincze and Carey [21] have fervently opined that sex therapists have a special obligation to practice in a manner that promotes the public's trust. While the importance of patient autonomy and free choice cannot be lightly dismissed, it is, perhaps, the

most essential ethical requirement that the clinical sexologist behave in a manner that seeks to promote the integrity of the profession. It is the ethical obligation of all those in the field of clinical sexology that we behave in a manner that would cast no doubt on our commitment to the safety of our patients, and that we refrain from behavior that could potentially dissuade the public from seeking needed assistance and treatment.

4.6 The Ethical Conversation

Matters of ethical dilemmas and conflicts abound in every profession, especially those professions concerned with healthcare. The aim of this chapter was to alert the clinical sexologist to the potential risk in conflating ethics with risk management. Whether we are discussing sexual problems with people with serious mental disorders and their relationships, the importance of robust professional boundaries between practitioner and patient; sexual difficulties related to sexual interests, orientation, and/or values; the presence of coexisting disorders such as substance abuse; or issues related to reimbursement for our services, clinical sexologists should remain mindful of the four principles when considering the ethical response. While we may not always arrive at the most correct answer, our obligation is to have carefully thought through the issues; discuss our concerns, uncertainties, and challenges; understand to the best of our ability the potential impact and effect of our decisions; recognize the inherent dignity and self-worth of our patients; and always retain the desire to do what is right by the patients who have placed their trust in us. Our conversations need to be about more than simply risk management. As mentioned earlier, risk management, while certainly important, nevertheless represents the lowest bar of ethical practice. While we may need to occasionally rely on the input of the legal profession, we are clinical sexologists first and foremost. Practicing with ethical integrity requires no less.

4.7 Conclusions

Today's clinical sexologist faces a multitude of ethical dilemmas. The issues touched upon in this chapter merely scratch the surface of the possible ethical conflicts and decisions that practitioners face. Regardless of the issue, it is the clinical sexologist's obligation to regularly examine and question even the most widespread and accepted tenets of sexological practice. As mentioned above, what is socially and sexually acceptable changes over time and varies from culture to culture. It is the responsibility of all clinical sexologists to be open to debating challenges to the norms and standards of our profession. For this reason, ethical decision-making should never be made in a vacuum. In order to practice ethics with integrity, ethical conflicts and dilemmas need to be addressed via group discussions. It is only through discussion and debate with others that our own blind spots can become apparent.

In sum, we concern ourselves with ethics in order to protect the public, as well as the integrity of our profession. We must not let sociopolitical agendas overshadow our commitment to patient well-being. We must strive for a practice that is integrity based in order to preserve and protect the public's trust in the professional practice of clinical sexology.

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Sexual Relationships

5

Anıl Gündüz and Mehmet Zihni Sungur

5.1 Introduction

Each individual is special, and relationships are unique, including sexual ones. These make relationships genuine and vulnerable to many factors. The sexual relationship can be defined as an essential component of intimate ties, whether this tie is marital, cohabitation, or even unconstrained. The sexual relationship may or may not include intercourse, but consists of three major successive stages including desire, arousal, and orgasm, and each of these stages has specific physiological, emotional, cognitive, and subjective experience aspects that can be unique to each individual [1, 2]. The major paradigm shift was made in the DSM-5 regarding sexual response cycles and suggested that male and female sexualities are, in fact, different. However, there is still room for further research and debates to understand the differences, similarities, motives, and aspects of sexual responses and relationships. Social changes are one of the significant factors that alter sexual relationships. Increasing globalization and prompt transitions in social and cultural perspectives have a major influence on human sexual relationships.

Furthermore, other factors such as religious and moral values may pressure individuals or couples to accommodate stereotypes [3]. The reasons above may change the attitudes toward sexuality and alter the couple's or individual's expectations of a sexual relationship. Conflicting expectations from sexual relationships may result in a burden of increasing distress on men, women, bisexuals, gay and lesbian, or transgender relationships. Additionally, male and female sexual responses can be distinct in different stages, and there are different kinds of facilitators for sexual responses in different genders [4]. Women and men have various

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sexual and non-sexual reasons to have sexual relationships including emotional (love and commitment and expression), physical (stress reduction, pleasure, physical desirability, and experience seeking), goal attainment (resources, social status, revenge, and utilitarian), and insecurity factors (self-esteem boost, duty/pressure, and mate guarding) [5].

On the one hand, the sexual relationship of a couple is correlated with the general relationship, and it's difficult to give a description of a satisfying sexual relationship without relating it to the other aspects of the relationship [6]. On the other hand, it should be noted that all emotionally close ties are not inherently sexual nor do sexual intercourse necessarily require emotional bonds. A satisfactory sexual relationship needs to include a good general relationship, appropriate physiological responses in both partners, and healthy psychological states. For these reasons, a satisfactory sexual relationship needs the well-being of both the relationship and the individual [7]. A sexual relationship requires two persons to be responsive to their dynamic roles and needs in the relationship; therefore, some difficulties are unavoidable. Past emotional and sexual narratives of individuals are also expected to bring further problems. Worries, potential threats, anticipations, shyness, reticence, hindrance, and fantasies might complicate the pursuit of a shared pleasure of closeness. Furthermore, besides the healthy psychological state of each partner, healthy anatomy and physiology are also other necessities for a healthy sexual relationship. It is quite surprising that couples can enjoy a sexual relationship at an adequate level and tend to take it for granted when many variables could have a potentially profound negative impact on sexuality.

5.2 Sexual Communication

Sexual communication is a major necessity for a healthy sexual relationship. Machiavelli was the first person to emphasize the vitality of communication in human relationships [8]. Satir highlighted the importance of communication and shifted the focus from the individual to the interaction between individuals and emphasized that communication involves at least two people and the interaction between the person who sends the message and one who receives it [9]. Although communication is the basis of any kind of relationship, it might become a significant issue if the couple is distressed. Yet, sexual communication maybe even more complicated to achieve in a long-lasting relationship.

Communication can primarily be defined as sharing opinions and receiving feedback to confirm that the statement has been intellectually and empathically comprehended by each partner. Positive communication skills include sending clear and validating messages in an empathic and supportive way, and a good listener is expected to clarify and reflect on what is heard without necessarily anticipating mutual agreement [10].

Nonverbal communication includes all unspoken messages and significantly affects the reception of messages; however, interpreting them accurately may turn into a major difficulty. When verbal and nonverbal messages are not coherent or

contradict each other, it becomes even more challenging to interpret. For instance, if one of the partners verbally refuses to participate in the sexual activity but then reacts enthusiastically to various sexual stimuli, it might be difficult for the other partner to understand or to believe that this communication is genuine. Common types of nonverbal communication are eye contact, gestures, mimics, body postures, touching, and closeness. Eye contact might be a sign of interest in what is being heard, yet longer contact might show interest in building a connection. Moving closer may be a sign of desiring increased interest or intimacy, and touching may indicate emotional closeness and/or sexual desire [11]. Unfortunately, it is difficult to rely solely on nonverbal communication to express sexual wishes or refusals, as there is a significant risk of misinterpretation. However, one way to overcome a possible misinterpretation is to be assertive enough to discover verbally whether the message is decoded accurately by reality checking (giving feedback).

> Assertive communication is referred to the DESC acronym, where D stands for description, E for expression, S for specification, and C for choosing [12]. An illustration for the use of DESC could be as follows: "When you expect me to be ready for sex without having enough foreplay (description), I feel as if I am your sex toy (expression). If we can devote enough time to improve and extend our foreplay (specification), I will be able to be more relaxed, and I will try to make our sex life more satisfying for both of us (choosing)."

Better communication skills will help lessen misunderstandings and misinterpretation and improve mind reading, which will, in turn, enhance intimacy and build a better environment for both the general and sexual relationship [11].

5.3 General Relationship

Problems in the general relationship do generally influence the quality of the sexual relationship, yet sexual problems may also affect the quality of the general relationship [6]. On the one hand, one or both partners may experience general difficulties, such as problems with getting along, continually having conflicts with the partner, and not once agreeing about different issues. On the other hand, more specific complaints can present and impair sexual relationships, such as lack of affection [2, 13], conflicts about social interactions, or insufficient appreciation of the other's role or conflicts regarding children's upbringing [14]. These issues may unveil resentment, rage, anger, and tension which also contribute to sexual problems [15]. However, sexual problems can also spoil other aspects of the relationship, and the level of frustration and dissatisfaction within the relationship might increase if each attempt to make physical contact is rejected due to sexual difficulties. Vicious cycles may develop in which the sexual problem interacts adversely with other parts of the

relationship [16]. These vicious cycles must be intervened by clarifying each partner's complaint, what attitudes and behaviors do each partner wish in the other to change, under what conditions does this need increase, and by discussing the consequences of change in attitudes of the partners. For instance, when the woman is uninterested in sex but the man has a demanding attitude, then the problem is multiplied by her reluctance and his dominance. Yet, these are not the only vicious cycles in human sexual relations, for instance, when a woman suffers from vaginismus, her partner may develop sexual dysfunction or problem such as erectile failure, early ejaculation, or hypoactive sexual desire for adaptive reasons [17] so that this adaptation may relieve the pressure over the woman or prevent further damage in the general relationship. Thus, sexual dysfunction may develop in the other partner as a response to the sexual dysfunction of the other partner to prevent further adverse effects on the quality of the sexual and/or general relationship. For these reasons, assessing and evaluating the sexual relationship through the relationship and the individual partner perspective is a necessity.

5.4 Sexual Functions

Desire, arousal, and orgasm are the three major components of sexual functioning, and there are several common and different factors influencing these functions. Sexual desire can be defined as a motivation that promotes the individual to seek or be involved in sexual activity, thoughts, or fantasies [18]. Yet, female sexual desire and arousal problems are merged into a single diagnostic criterion in the DSM-5. Sexual desire occurs through complicated processes and needs positive interactions among internal cognitive processes, neurophysiological mechanisms, and affective components [2, 13]. Considering the complexity of the emerging mechanisms of sexual desire, various factors could interfere with it. Physical and psychological problems, current living conditions, general relationship issues, and sexual problems of the partner may impair sexual desire. Loss of sexual desire in one partner may have a direct effect on both partners' sexual life, sooner or later.

It should be noted that sometimes a lack of desire can be masked by a lack of arousal, anorgasmia, or other sexual problems [18]. In females, sexual arousal may not necessarily follow sexual interest, as it does in men, as sexual interest may emerge following sexual arousal as well. This is mainly because women have sex for non-sexual reasons such as maintaining relationships or improving intimacy. However, if the sexual activity proves to be pleasurable, this may be followed by increased sexual desire.

Sexual arousal maybe considered as a distinct entities in different genders [19]. Although it can be described as a consequence of increased blood flow and local alterations in the blood vessels and smooth muscles in genitals via physiological and different hormonal mechanisms, it has internal psychological components responsive to cognitive sexual stimuli. Sexual arousal comprises a particular subset of central nervous system functions that depend on primitive, fundamental arousal mechanisms that cause generalized brain activity but are manifested in a sociosexual context [20].

Orgasm occurs in men when sexual excitement increases to the inevitable point of ejaculation [21]. In females, this is probably triggered by the neural reflex arch in response to genital vasocongestion associated with pleasant sensations and rhythmic muscle contractions. It is still debated whether ejaculation in males equates with orgasm. Usually, ejaculation and orgasm are sensed concurrently and thus experienced as a single entity, yet orgasm occurs in the brain and influences physical responses and psychological changes, whereas ejaculation occurs in the prostate, urethra, and pelvic floor muscles. They may be two different experiences or they may be interrelated [22]. On the one hand, those who had a prostatectomy or who take ejaculation-inhibiting drugs can retain the capability to reach orgasm in the absence of ejaculation. On the other hand, some men with spinal cord injury can ejaculate without orgasm. The quality of sexual functioning is determined by a wide variety of factors, such as psychological problems, negative life events, current living conditions, individual and partner's health circumstances, acute or chronic medical conditions, adverse effects of pharmacological agents given for the treatment of both psychological and medical disorders, and licit and illicit drug abuse [23, 24]. Personality characteristics, cognitive and affective factors, and general relationship issues are additional major risk factors for a healthy sexual relationship and sexual function [2, 23]. Sexual distress might emerge due to the effects of sexual problems and general relationship issues and each partner's reaction to the same problem.

5.5 Sexual Distress

Although sexual activity usually involves two individuals (at least), many professionals today tend to avoid labeling people with a sexual dysfunction based on their partner's distress when the client, not themselves does not complain about any difficulty or distress. Additionally, some individuals who have sexual problems do not have partners. There is an ongoing debate about whether a complaint should be considered as a disorder only when it leads to individual distress or both interpersonal problems and personal distress to validate the partners' emotions. Although the DSM-5 prefers the term "personal distress," a wording such as "negative personal consequences" might reflect real-life, individual experiences in a broader manner that contains not only distress but also avoidance of sexual events and frustration due to negative experiences [25].

5.6 Psychopathology

Sexual problems are frequently prevalent among individuals with psychiatric disorders which may be a result of the disease itself and/or its treatment [23]. Currently, the frequency of sexual dysfunctions is still under investigation by direct questioning, and professionals from different disciplines do not accurately investigate sexual problems and disorders of the partners of those individuals who come forward to seek help for sexual problems. Additionally, most clinicians do not ask for or

recognize sexual dysfunctions in patients with mental health problems who are on psychotropic medications (for further information, see the chapter on substance-related disorders and sexual functioning). There is a limited acknowledgment of the importance of the sexual relationship in chronic and frequently seen mental disorders, such as psychotic disorders, mood disorders, anxiety disorders, eating disorders, or addictions.

Good mental health is necessary for a healthy sexual relationship, and early traumatic experiences, mood, personality traits, and sex-negative cultural settings may have a major impact on sexual relationships [23, 26]. This impact can manifest solely or expansively in all stages of sexual responses and may exhibit itself in behaviors ranging from promiscuity to avoidance. Personality characteristics or disorders have a significant role in the experience and expression of sexual responses, functioning, and relationships. In addition, personality disorders increase the risk of depression, anxiety disorders, and other Axis I disorders which increases the likelihood of sexual problems [26].

Patients with personality disorders exhibit profound chronic, rigid, and maladaptive ways of interaction both sexually and within relationships (for further information, see the chapter on personality disorders). Schizoid or schizotypal individuals usually have very limited interpersonal relationships and therefore lack sexual encounters which can lead to a reduction of sexual skills and performance [27]. Narcissistic individuals may have significantly lower self-esteem, more negative attitudes toward sex, greater egocentric patterns of sexual behavior, more conservative or traditional gender-role orientation, and greater sexual preoccupation [28]. Individuals with a histrionic personality disorder (HPD) have an intense desire for attention and affection which leads to self-centered, seductive behaviors and emotional exhibitionism with excessive dramatic and manipulative behaviors, with a lack of consideration of their impact on their sexual lives. This often leads to interpersonal difficulties, problematic relationships, and emotional disturbance with anger and low mood [29]. Borderline personality disorder (BPD) is a frequent, severe, and complicated disorder with marked problems in emotion regulation. Women with BPD have higher levels of sexual assertiveness, higher sexual self-esteem, greater sexual preoccupation, more sexual boredom, and more significant levels of sexual dissatisfaction as compared to women without BPD. Sexual dysfunction is not specific to BPD but is often closely associated with it since sexual traumatization is a common but not a necessary phenomenon in these patients [30]. Many clients who suffer from Cluster B personality disorders experience difficulty maintaining their general and sexual relationships due to lack of impulse control and demanding/dominating attitudes.

Mood disorders and its treatment independently or simultaneously affect sexual functioning and relationships [26]; therefore, one of the major challenges is to distinguish the main reason for sexual problems in these circumstances. It is not surprising that depressed individuals have higher levels of sexual problems even prior to an antidepressant (AD) treatment and sexual problems are more prevalent in major depression, dysthymia, and brief depression [23, 26]. Yet the connection between depression and SD is unclear and is hypothesized to have a circular impact on each other [31]. Clients seen by the authors and/or their

partners suffered from a lack of sexual interest and arousal due to depression or its pharmacological treatment (see Chap. 16 for more information about depressive disorders).

Sexual interest and activity increase in manic or hypomanic episodes and lead to impulsive sexual behavior which violates patients' and their partners' moral, religious, and sociocultural values causing distress to the couple [32]. Variations in sexual desire depending on fluctuating mood states puzzled the partners of male patients with bipolar disorder in many cases seen by the authors. There are various anxiety disorders such as panic disorder, social phobia, specific phobia, and generalized anxiety disorder. Symptoms differ depending on the type of anxiety disorder due to worries about sexual performance. Over-anxiety is linked to increased sexual difficulties [33]. Many clients who suffered from generalized anxiety disorder experienced problems regarding erections due to performance anxiety. Obsessive-compulsive symptoms are likewise associated with a decrease in sexual pleasure, desire, and sexual satisfaction [34], and this might be connected to rituals and ruminations regarding sexual activity.

Patients who are diagnosed with schizophrenia have limited interpersonal relationships and lack of interest and sexual experience in establishing general and sexual relationships [35]. Approximately half of the schizophrenia patients experience sexual problems, and the frequency of sexual problems may be higher in males compared to females [36]. Many schizophrenic cases followed by the authors reported lack of sexual desire and erectile problems when they were asked about their sex lives which might have happened either to the disorder itself or due to the pharmacological treatment given (see Chap. 15 for more information about schizophrenia and other psychotic disorders). There is a need for further research in mental disorders related to the sexual relationship to achieve a better understanding of the mechanisms of sexual dysfunctions ranging from the disease itself to its interpersonal and personal consequences.

5.7 Key Messages

- A satisfying intimate relationship involves both physical and emotional intimacy.
- Both physical and emotional intimacy may only be warranted by a compassionate relationship, healthy communication, mutual commitment, and regular satisfactory-desirable sexual activity.
- Sexual communication is a major necessity for a satisfactory sexual relationship and requires basic communication skills.
- The satisfactory sexual relationship cannot be isolated from satisfactory general relationship issues.
- Components of sexual response and functioning such as desire, arousal, and orgasm must be thoroughly assessed in order to understand the whole context of the sexual relationship.
- The sexual relationship is an essential element of intimate ties between humans and should be evaluated through the quality of the general relationship, physiological responses of each partner, and psychological states in both partners.

- The satisfactory sexual relationship is not defined by sexual performance but does require a good general relationship, the well-being of each partner, and responsivity to each other's needs. This requires compassion and understanding and acceptance of each other's differences. Couples can only maintain a satisfactory sexual relationship by embracing and celebrating each other's differences.
- Problems arising from adverse life events may have a significant negative impact on sexual relationships; therefore, the therapist should have a versatile therapeutic skillset in order to help couples and individuals to manage these life events, as well as their sexual problems.
- Various risk factors can cause difficulties in sexual relationships such as general relationship problems, psychological and medical conditions, consistency of psychological disorders, and the adverse effects of their pharmacological treatments given to treat these disorders.

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The (Mental) Health Benefits of Sexual Expression

6

Woet L. Gianotten

6.1 Introduction

Over the last century, the more affluent Western societies witnessed a tremendous change in how we look at sexuality. For individual people, sexuality moved away from a predominantly reproductive act to an act far more guided by pleasure and bonding. For professionals, the sexual health domain changed as well. Whereas for many decades the discourse had been dominated by risk and danger, changes for the better took place because of the discovery of antibiotic treatments, the availability of effective contraception, proper sexuality education, increased gender equality, and secularization, accompanied by diminished feelings of (sexual) guilt. Those developments opened windows to a wider reception of sexual pleasure. The last decades showed also a change in how we look at health. With a greater understanding of the causes of diseases, we are gradually learning how we can influence health.

Whereas many articles are published on the sexual consequences of diseases such as cancer or schizophrenia, this chapter wanders the other direction and relies on the limited research of which aspects of sexual behavior appear to benefit physical and mental health. 'Sexual expression' represents the wide range of dyadic or solitary sexual activities with arousal, orgasm, intercourse, masturbation, hugging, and other ways of expressing sexual intimacy.

For the time being, it doesn't seem possible to demonstrate that sexual expression really causes improvements in health; this is clearly observed in the common question: "Do healthy people have more sex, or does more sex make people healthier?". Such elements of sexual behavior cannot really be approached via randomized controlled trials. So we mainly have to rely on longitudinal research and cross-sectional investigations.

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This chapter will focus on those benefits that are relevant for the daily practice of mental health professionals. We will start with indicating various ways along which sexuality appears to have benefits.

Then we will address some physical health benefits, beginning with the short-term ones followed by the long-term benefits. After that we'll focus on the health benefits in the mental health area, and finally, we'll try to delineate some practical implications.

In that last part, we'll dwell also on the implications of the Declaration of Sexual Rights of the World Association for Sexual Health. It says: "Everyone has the right to the highest attainable level of health and wellbeing in relation to sexuality, including the possibility of pleasurable, satisfying and safe sexual experiences." [1] That raises the question how to deal with sexuality in relation to the inpatients who fall under our care (and responsibility).

6.2 Various Mechanisms Behind Sexuality-generated Health Benefits

There is a wide range of health benefits related to sexual activity. Some benefits are very short term and directly related to the sexual act. Examples are the increased pain threshold for a short period after female genital stimulation [2] and the decreased muscular tension (in spinal cord injured men) for a period of up to 6 h after penile vibration or ejaculation [3]. Women who have more frequent sex have the intermediate-term benefit of postponement of the natural menopause (and the accompanying hypoestrogenism) [4]. On the other side of the spectrum, there are real long-term benefits. Examples include a possibly decreased risk of prostate cancer in men who over the decades have ejaculated more frequently [5], increased longevity in men who continued with sexual intercourse, and increased longevity in women who have had a more satisfactory sexual life [6].

In mental health, an example of short-term benefit is the increased sedation and interpersonal trust due to raised oxytocin levels after cuddling and orgasm [7]. An example of long-term benefit is the higher relationship satisfaction in committed relationships due to sexual functioning [8].

Various aspects of sexual behavior are also accompanied by a wide range of health benefits in the areas of fertility, pregnancy, and childbirth. Mental HCPs working in that area can find those benefits elsewhere [9, 10].

Here below we'll give several mechanisms of sexuality-generated health benefits.

6.3 Short-Term Health Benefits

A variety of elements of the sexual response changes the homeostasis in the body.

6.3.1 Oxytocin

Caressing, massage (both the active and the passive element of it), breast stimulation, arousal, and orgasm, all increase the oxytocin level. The increase after orgasm was found to take approximately 5 min. This neurohormone not only has nurturing and sedating effects, but it also acts prosocial and increases interpersonal trust [7, 11]. It appears that in the bonding between romantic partners, oxytocin is a relevant factor behind the touching and cuddling during lovemaking. Among oxytocin's many advantages are anti-stress, antidepressant, and anxiolytic effects [12].

6.3.2 Testosterone (T)

Testosterone has many direct and indirect sexual effects. It is a key element for sexual desire in both men and women, with direct sexual effects on arousability and sexual fantasies, and indirect sexual effects via mood and energy, with clear gender differences [13]. In women, T was positively linked to solitary desire, with masturbation implicated in this link. However, in women, there were significant negative correlations between T and dyadic desire with stress moderating this association. In men, no significant correlations were found between T and desire. Men showed higher desire than women, but masturbation frequency rather than T appeared to be responsible for this difference [13].

Next to the influence of T-level on the chance of desire and sexual contact, sexual contact can also increase the T-level [11, 14]. This relationship, however, appears rather complex. Cuddling can on the one hand be experienced as sexual, which causes an increase in T, whereas it can also have nurturing elements that can cause a decrease in T [11]. In women who do not use hormonal contraception, not only sexual activity, but also sexual thoughts increase the T-level [15].

6.3.3 Prolactin

Both in men and women, orgasm is followed by an increase in prolactin that takes at least an hour (an increase that is not found in men who masturbate without orgasm) [16]. A characteristic of orgasm is the state of calm that follows it. Stimulation stops and resolution starts with the nitric oxide level decreasing, causing the end of the relaxation of the smooth muscle in the artery walls. With orgasm, this return of arousal and vasocongestion to baseline occurs quickly. Without orgasm, it takes more time. After a long period of arousal not leading to orgasm, it is difficult to return to baseline, which is in women the explanation for various pelvic hypercongestive complaints and which in young men can explain testiculoscrotal pain ("blue balls").

6.3.4 Cortisol

Cortisol is relevant in stress and immunity. There is limited information on the relation between sexual behavior and cortisol. Whereas sexual arousal apparently does not increase cortisol [16], skin touching (hugging, massage, stroking) appears to bring down cortisol levels. This is claimed in various complementary and alternative medicine treatments and observed in patients with dementia, but not investigated in relation to sexuality [17].

6.3.5 Influencing Immunity

Partnered sexual activity has been shown to be a risk factor for lowered immunity in women with depressive symptoms, but a possible resilience factor for men with depressive symptoms [18].

Students who had sexual intercourse once or twice a week had IgA levels 30% higher than those who were abstinent [19].

Kissing, which is a nearly ubiquitous part of sexual expression in the Western World, appears to alleviate allergic symptoms by decreasing allergen-specific IgE production [20]. In the context of this book, mentioning kissing is relevant because many psychiatric drugs can reduce saliva production. That will at least diminish the pleasure of kissing and oral sex (with reduced quality of life).

6.3.6 Pain Reduction

Pain can be a killjoy for sexuality. The other side is that sex can be used as a way to reduce pain.

Hambach et al. investigated headache patients who had experience with sexual activity during an attack. In migraine patients, 60% reported an improvement of their migraine (within 70% of them moderate to complete relief) and 33% reported worsening. In cluster headache patients, 37% reported improvement of their cluster headache attack (91% of them had moderate to complete relief) and 50% reported worsening. Some patients, in particular male migraine patients, even used sexual activity as a therapeutic tool [21].

Pain can be reduced through various ways of distraction, with pleasurable sex one of them. However, distraction is not the only pathway. Women have a gender-specific advantage in this area. Pressure stimulation of the anterior vaginal wall and self-stimulation of the clitoris had an analgesic effect with maximum effect when an orgasm was reached [2]. There are multiple neurotransmitters released into superfusates of the spinal cord that influence both nociceptive and antinociceptive systems [22].

Endorphins are another explanation for the pain reducing effect of sexual activity [23]. There are indications that oxytocin plays a role here as well. Women with

higher oxytocin levels have a higher pain threshold [24]. The oxytocin increase caused by massage has antinociceptive effects apparently via endogenous pain controlling systems [25].

6.3.7 Muscle Relaxation

Clinical practice in patients with multiple sclerosis and research in patients with spinal cord injury make clear that sexual vibration and orgasm cause for several hours less spasm and muscle relaxation [3]. Although more research is needed, one could assume that people without muscular spasms may also experience muscular relaxation.

6.3.8 Sleep

Disturbed sleep is associated with decline in sexual activity and function (see Chap. 20 for more information about sleep disorders) [26]. Here no indication is found on what occurred first. Sexual activity seems to be a healthy way to fall asleep. This is achieved via a mixture of physical activity and muscle relaxation; elevated oxytocin level (with its stress-reducing effect); elevated prolactin level after orgasm; inhibition of cortisol after orgasm; and the state of calm. Whereas the oxytocin level increases all along the sexual process, prolactin only increases after orgasm. Much empirical evidence suggests that sexual activity followed by orgasm facilitates sleep, although this could not be substantiated in a laboratory setting [27].

Masturbation regularly seems to be included in the list of sleep-inducing maneuvers. In an American study, 32% of 866 women who reported masturbating in the previous 3 months did so to help them fall asleep [28]. In an Australian study among >750 men and women, >50% indicated improved sleep quality after masturbation, resulting in an orgasm, with no gender difference. After sex with a partner, the sleep benefits were higher in men, which could be explained by the gender gap in orgasm frequency [29].

6.4 Long-Term Health Benefits

6.4.1 Sex as Physical Activity

The energy expenditure during sexual activity is approximately 85 kcal or 3.6 kcal/min and seems to be performed at a moderate intensity in young healthy men and women [30]. Even without muscular activity, sexual arousal activates blood circulation. To a variable degree, it can be accompanied by changes in heart rate, in blood pressure, and in peripheral vascular responses. Orgasm is always accompanied by a rise in heart rate (20–80 beats/min), in systolic blood pressure (25–120 mmHg), and

in diastolic pressure (25–50 mmHg) [31]. In both men and women, the cardiovascular response during intercourse tends to have higher peak heart rate and blood pressure values. These parameters tend to rise slowly throughout intercourse, peak for a short period at or around orgasm, and then quickly return to baseline, usually within 1 or 2 min [32].

Nowadays, physical activity becomes more and more recognized as an important lifestyle factor that delays the development of atherosclerosis and cognitive decline. That makes the idea to include sexual activity in health recommendations attractive. Especially for many older people who have far less pleasure in other forms of exercise, sexual activity can function as a relevant alternative form of exercise, although their expenditure and peak cardiovascular values appear less [32].

There lies a very direct relationship with the metabolic syndrome (a cluster of symptoms with obesity, hypertension, glucose intolerance, and low testosterone levels). People with more physical activity have less risk to develop metabolic syndrome [33].

6.4.2 The Very Long-Term Effects on Cardiovascular Health, Cognition, and Longevity

This is the area where the "chicken and egg" puzzle appears most confusing. The question "Do people have more sex because they are healthy, or are they healthier because they have more sex?" appears very difficult to answer. Previously, there was the other "chicken and egg" question with physical health and sportive activity as end criteria. By now, we appear to have tipped over and believe that physical activity promotes health (cardiovascular, cerebrovascular, and age-wise). Unfortunately, doing such research in the area of sexuality is far more complex.

In a study in Wales, middle-aged men with two or more acts of intercourse per week had (in a 10-years follow-up) a 50% lower risk of dying than men who did it once a month or less, with clear benefits in the areas of cerebrovascular and cardiovascular health [34]. Most probably, it is not the act of intercourse itself, but going through the process of arousal and orgasm (with its intense increase in cardiovascular and cerebrovascular circulation). Which means that other ways of reaching orgasm (included solitary masturbation) probably will have comparable benefits.

A more recent longitudinal American population-based study on older men and women looked into the links between partnered sexuality and cardiovascular risk in later life [35]. Men reported more partnered sexual activity, and for them it was more enjoyable than women reported. Men with once a month partnered sex had less elevated CRP (C-reactive protein, a marker for systemic inflammation and an important predictor of cardiovascular risk) than men without partnered sex. A higher frequency of partnered sex in men was positively related to later risk of cardiovascular events for men but not women. Good sexual quality seems to protect women (but not men) from cardiovascular risk in later life. In their research, no evidence was found that poor cardiovascular health interferes with later sexuality for either gender.

Sexual activity appears to be linked as well to reducing the rate of cognitive decline. The most recent data come from the last wave of the English Longitudinal Study of Ageing that explored associations between sexual activity and cognition in adults aged 50–89. More sexual activity was found to be associated with higher scores on tests of memory and executive function [36].

The abovementioned gender differences were also found in an American longevity study over a 25-year period. In men, more intercourse increases longevity, whereas in women greater longevity was seen with past enjoyment of intercourse [6]. Other research in 800 American adults over age 60 looked into key aspects of sexual behavior. According to three quarters of these senior respondents, sex had a positive effect on their health [37]. Taiwanese research showed that men, women, and couples had lower mortality rates when sexually active [38].

In four West European countries, they looked into the relationship between (retrospectively assessed) changes in sexual interest and enjoyment and successful aging. Higher successful aging scores were consistently related to lower reduction in sexual interest and enjoyment in men and women. Without stigmatizing the absence of sexual expression in aging men and women, the authors conclude that sustained sexual interest and sexual enjoyment are linked to successful aging [39].

6.4.3 Sex Activity for Sexual Self-Maintenance

"Use it or lose it" is as appropriate for sexual function as it is for muscles and many other systems in the body. That goes especially at higher age. Not continuing sex (jointly or solo) appears to reduce our sexual potency [40]. Men have nocturnal erections. When they disappear for an extended period (for instance, after radical surgery for pelvic cancer), anoxemia and disturbed nitric oxide metabolism can permanently damage the cavernous tissue, resulting in permanent loss of erection [41].

Postmenopausal women who continue to be sexually active are found with less vaginal atrophy and higher levels of androgens and gonadotropins [42]. Testosterone in itself is an element in the "sexual vicious circle." It is needed for sexual desire, but it also increases through sexual activity [11].

6.4.4 Sexual Activity Influencing Oncogene Release

Frequent ejaculation (expelling the semen) influences the prostate cancer risk. A large US-based study showed that more frequent ejaculation had a beneficial role in the etiology of prostate cancer, particularly in lower-risk cancer [5]. Among the explanations for the protective role of frequent ejaculation is the clearing out of carcinogenic substances from the prostate and also reduced formation of cancer-promoting intraluminal crystalloids [43]. *However, a meta-analysis indicated that men* with fewer sexual partner numbers, older age at first intercourse, and moderate frequent ejaculation were associated with a significantly decreased risk of prostate

cancer [43], so more studies need to elucidate the effect of sexual activity and prostate cancer and the studies need to be interpreted with caution.

6.5 Sexuality-Related Mental Health Consequences

Sexual satisfaction is a component of people's health, well-being, relationships, and quality of life [44]. In committed female-male relationships, several dimensions of sexual functioning (e.g., sexual desire, arousal, orgasm) are associated with the sexual satisfaction of individuals. At the interpersonal level, greater sexual satisfaction is consistently found to occur with greater relationship satisfaction, quality of communication, and stability [44].

In a study in long-term committed relationships in five different countries, researchers looked at the relationship between sexual functioning and relationship satisfaction. Both in men and in women, sexual functioning was a strong predictor of relationship satisfaction [8]. Compared to men, women showed lower sexual satisfaction early in the relationship, but greater sexual satisfaction in later stages.

6.5.1 Sexuality and Happiness

An American study among 16,000 adults found that more sexual activity was strongly connected to more happiness [45]. It appears difficult to be certain about what comes first, the happiness or the sexual activity. Common sense makes us guess at least that for the majority of people, happiness and sexual activity influence each other.

6.5.2 Sexuality, Work, and Marital Relationship

A fascinating new line of research is developing in the field of work and management. Investigating the various influences on the productivity of the workforce, the concept of "spillover" (for instance, how daily life influences work conditions and vice versa) is used. Management researchers started addressing sexuality and marital relationships [46]. Employees engaging in sex at home reported increased positive affect at work the next day, both in terms of job satisfaction and in job engagement. The researchers showed also the spillover effect of work conflict towards family conflict.

6.5.3 Youthful Appearance and Confidence

A study conducted over 10 years and involving more than 3500 European and American women and men examined various factors associated with youthful appearance [47]. Women and men whose age was regularly underestimated by 7–12 years were labeled "superyoung." One of the strongest correlates of youthful appearance among those superyoung was an active sex life. They reported engaging

in sexual intercourse three times a week in comparison with the control group's average of twice a week. The "superyoung" were also found to be comfortable and confident regarding their sexual identity [47].

6.5.4 Self-Esteem

In young married women, it was found that positive sexual experiences with a partner may increase self-esteem. Additionally, accepting and embracing one's sexuality and desires appears to enhance self-esteem. They found also a correlation between more frequent masturbation and higher self-esteem. Their research suggested also that women who masturbate have a more positive body image and less sexual anxiety [48].

In an extensive article on the benefits of masturbation among German women, results indicated that in 11% the reason was "to feel sexy"; in 8% "to feel feminine"; in 20% "to feel myself"; and in 23% "because I like touching myself," whereas "when I am frustrated/depressed" scored 6% [49].

In the context of cultural differences, these results probably require some clarification. In the clinical experience of 70–80 years ago, masturbation was for many men and women in Europe surrounded by much insecurity, feelings of guilt, and sometimes depression. By now those negative feelings have disappeared for the majority of people, however are still present in a small proportion of people [50]. One may expect that this will be found more in orthodox religious communities.

6.5.5 Sexuality Influencing Mood and Depression

In a multicountry study, sexual satisfaction in males was found to relate to more frequent sexual intercourse and to relate inversely to depressive symptoms [51]. The researchers suggested that depressive symptoms are linked to erectile dysfunction mediated by decreased sexual activity and the dissatisfaction generated by the inability to have a healthy sexual life.

An intriguing group in this context is formed by the individuals who label themselves as "asexual." Asexual women reported higher levels of neuroticism, depression, phobic anxiety, and personal sensitivity, as well as lower extraversion and conscientiousness than non-asexual women. Asexual men reported more neuroticism and psychoticism and less extraversion [52].

6.6 Practical Implications for the Mental Health Professional

After explaining these various health benefits of sexual expression, we'll now look into the practical implications. What is or what could be the role of the mental health-care professional?

We differentiate between the professionals who work with ambulatory patients and the professionals working in institutionalized care.

With regard to ambulatory patients, we summarize our recommendations as follows:

1. Address the importance of keeping the sexual and intimate life as good as possible, unless in the situation when patients explicitly make clear that they are not interested in sexuality.
2. Explain that the disease for which they come to us could very well interfere with the sexual relationship and with intimacy.
3. When relevant (which is the case in nearly all psychiatric medication), explain that the prescribed treatment can interfere with various aspects of sexuality and intimacy.
4. In the discussion with patient (and couple), it could be useful to make clear that investing in the sexual life will help with maintaining or regaining intimacy, sexuality, and the sexual relationship.
5. Explain that there are no contraindications regarding sexual expression and that sexual activity can help in physical and emotional recovery.
6. When relevant, explain the potential benefit (especially the direct) effects of sexual expression for pain relief, stress reduction, muscle relaxation, and easier sleep.

Professionals working in (long-stay) institutionalized psychiatric or psychogeriatric care have different responsibilities, and they face different challenges. Their patients are sexual beings, just like others, usually with sexual desire, needing sensuality and cuddling, and with bodies that could benefit from the relaxation and pleasure of sexuality and intimacy. So, it appears relevant to be aware of the potential benefits of sexual expression for pain relief, stress reduction, muscle relaxation, and easier sleep. Or in a wider sense for quality of life. Here we could use the term "elements of care".

In a study on community-dwelling couples, where one of them has Alzheimer's dementia, they looked at gender differences in measures of intimacy, caregiver well-being, and patient sexual behaviors. Whereas female caregivers reported higher levels of stress and depressive symptoms than male caregivers, the female caregivers had significantly fewer stress and depressive symptoms when satisfied with intimacy [53].

In more advanced stages, the dementia patient ends up in a nursing home where 75–90% of the residents with dementia tend to develop behavioral symptoms like agitation and restlessness which may be associated with a stress response. "Therapeutic touch" (physical contact via neck and shoulders) significantly reduced restlessness coupled with stress reduction [17].

A comparable process takes place when the patient has intimate contact. That can be with the partner and we believe that the nursing home should not only allow but proactively create conditions for such contact. Intimate contact can also be beneficial with another patient. That generates other discussions with moral and ethical discussions and with the responsibility to prevent sexual abuse.

We should be realistic and be aware that patients in psychiatry long-stay can fall in love with other patients and that probably many of them will have explicit sexual needs.

Sexual escort services have been available in the Netherlands for several decades. Women (and some men) are specialized to cater for the sexual and intimate needs of psychiatric patients. In a program in the 1980s, this service was offered to chronic psychiatry inpatients. The patients who made use of this service (in other words, those who had sex with the escorts) required less psychiatric medication and appeared also to be less disturbing to other patients and to the staff [54]. Although such care will neither be available in most settings nor acceptable to many health-care professionals, such experiences could challenge many of us to reconsider how our care fits in the context of human rights.

Case Report 1

Lara (42 years old), a university hospital librarian, is the only child from a very religious family, where sexuality was exclusively reserved for reproduction.

At age 23, she moves to the capital, away from her parents.

At age 27, without having any sexual experience, she falls in love with Kurt, some years older and divorced. He is tender and patient and Lara gradually discovers the joy of sensuality and sexuality.

Two years later, when she goes home to tell her parents about marrying Kurt, they declare that Lara is living in sin and they break all family ties.

With some difficulties, Lara distances from her religious past and focuses on her job and the relationship with Kurt. After the marriage, two children are born and Lara is genuinely happy.

At age 41, Kurt and both children die in a very serious car accident. Lara barely remembers what happened then, except that her parents never reacted. During the funeral and the first weeks, she can keep up by the support of Kurt's mother and Kurt's ex-wife. But then she glides in a deep depression and is finally admitted in a psychiatric ward.

She is seen by a young female psychiatrist who is moved by Lara's story. For the extensive feelings of (apparently religious) guilt, a pastor is called upon. The feelings of guilt are reduced when he makes clear that there is also a good God who has created love and sexuality to be lived.

The other crucial moment of change develops after the psychiatrist proactively addresses sexuality. Lara then tells about her loneliness, but also about lacking sexual feelings and relaxation. It becomes clear that Lara never learned masturbation. The psychiatrist: "I don't know. When stimulating yourself, it could be that you will feel lonely, but it is also possible that your body will enjoy the physical pleasure!". In the next period, Lara dares to expand her comfort zone and she learns how to masturbate. Her body reacts positively by feeling better and being more relaxed. However, she doesn't reach an orgasm, which apparently causes some insomnia. After adaptation in the medication, Laura again experiences orgasm. Her sleep improves, and she starts using makeup again.

6.7 Key Messages

- This chapter has tried to elucidate various health benefits of sexuality. Those health benefits can be long term and short term and can be experienced in the dyadic relationship, but also in the areas of physical health and mental health. Being aware of the value for the patient's quality of life, the chapter also aims at a proactive approach by the mental health-care professional.
- Opening up this topic could create another benefit that has not yet been addressed here: the benefits in the relationship between patient and (mental health-care) professional. In the physical rehabilitation setting, we developed an extensive training process addressing sexuality and intimacy [55]. This appeared to improve the professional relationship. One could suppose that this subsequently may improve therapy compliance.

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The Neurobiology of Sexual Responses and Its Clinical Relevance

7

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7.1 Regulation of Sexual Responses by Hormones and Neurotransmitters

In general, sexual functions—such as desire or sexual response—are modulated by multiple neurotransmitters, neuromodulators, and hormones that interact with central and peripheral neuronal structures. The main neurotransmitters, neuromodulators, and hormones involved in the central regulation of sexual functioning include sex steroids (e.g., testosterone, dihydrotestosterone, or estradiol), cerebral monoamines (e.g., serotonin, dopamine, or noradrenaline), and neuropeptides (e.g., oxytocin or prolactin). In the periphery, the sympathetic and parasympathetic nervous systems with adrenergic and cholinergic components as well as other neurotransmitters and second messengers such as nitric oxide (NO), vasoactive intestinal polypeptide (VIP), and others play an equally important role in an interaction with sex steroid hormones, especially estrogens and androgens. Bancroft and Janssen (2000) proposed the so-called dual control model [1] that describes two separate systems—an excitatory and an inhibitory—which in its original form primarily described psychological factors including three scales: sexual excitation (SES), threat of performance failure (SIS1), and sexual inhibition due to threat of performance consequences (SIS2) (see Fig. 7.1). Although the model was developed to mainly describe psychological aspects of sexual response, it is also useful when it comes to

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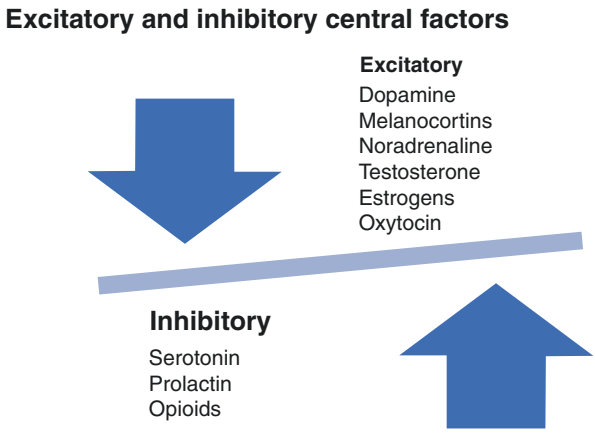

Fig. 7.1 Summary of inhibitory and excitatory neurotransmitter and hormones that are important for the regulation of sexual drive and function

understanding the complex interaction and influence of neurobiological factors. Altogether, a structured assessment of excitatory and inhibitory aspects provides a solid base for a comprehensive patient history, which in turn provides an understanding of clinical pictures that combine neurological, psychological, and social aspects.

7.1.1 The Effects of Sex Steroids on Cerebral Sexual Response

When it comes to excitatory and inhibitory effects on sexual response, sex steroids play a major part. Sex steroids are primarily released in the ovaries, the testicles, and the adrenal cortex. They are involved in the regulation of sexual fantasies, desire, as well as the responsivity to sexual stimuli. The suppression of sex steroids through application of testosterone antagonists (e.g., cyproterone acetate 50–200 mg/day) or LHRH (luteinizing hormone-releasing hormone) LHRH agonists (e.g., triptorelin embonate 11.25 mg every 3 months) leads to marked inhibition of sexual drive, desire, and function, as well as hypogonadism in men, and in women, low levels of androgens also may impair sexual desire. On a neurological basis, sex steroids (testosterone, dihydrotestosterone, and 17ß-estradiol) operate in subcortical as well as cortical areas. Involved subcortical areas comprise the hypothalamus, the amygdala (with nucleus stria terminalis), and the mammillary bodies (for an overview, see [2]). Involved cortical areas include prefrontal and temporal regions. Single case studies show an absent or decreased activation of essential parts of the limbic system and cortical areas during presentation of visual sexual stimuli after application of LHRH agonists. These changes were also present on a subjective level of sexual responsivity [3, 4].

In the central nervous system (CNS), testosterone is mainly metabolized to dihydrotestosterone (DHT) and 17ß-estradiol. These substances can either have long-term (between hours and days) or short-term (between seconds and minutes) effects, depending on the underlying mechanism (genomic or non-genomic) [5]. Long-term

effects are due to genomic mechanisms and can lead to synthesis of neurotransmitters relating to the monoamine system. Estradiol however is of high importance for central nervous processing of sexual pleasure and arousal also in men (in penile erection) [6].

The discovery of sex steroids' effects on sexual functioning leads to their clinical and pharmacological application. Clinically, it is well established that supplementing androgens and estradiol/progesterone in cases of hypogonadism or postmenopausal states will increase sexual desire. In contrast, testosterone antagonists or LHRH agonists are used to suppress sexual drive in case of severe sexual paraphilias, sexual offending, and most severe cases of hypersexual disorder. A combination of estradiol and antiandrogens (testosterone blockers) has shown to lead to a decrease in cortical thickness for occipital and prefrontal structures in transgender individuals (man-to-woman). The application of testosterone inversely leads to an increase in cortical thickness for specific brain structures in homosexual transgender patients (woman-to-man) [7]. Although neuroplasticity in adults is far from what we can find in prenatal or prepubertal stages, hormonal treatment seems to be able to lead to significant changes on a neuronal level and in behavior. Although not well examined in these subjects, this may also lead to a profound impact on cognition, emotion, as well as sexual experiences and behavior according to studies in other populations [8].

7.1.2 The Effects of Cerebral Monoamines on Sexual Response

Cerebral monoamines, such as serotonin, dopamine, or noradrenaline, have been found to significantly impact sexual functioning. All these monoamines are primarily produced by specific nuclei in the brain stem which maintain projections to various other brain areas and the spinal cord.

7.1.2.1 The Dopaminergic System

The dopaminergic system is important when it comes to motivational and hedonic aspects of sexuality. It is essential for the creation of sexual pleasure and desire and is also involved in further aspects of sexual functioning such as penile erections and lubrication. As shown in Fig. 7.2, the dopaminergic system comprises three parts: a mesolimbic/mesocortical part, a nigrostriatal part, and the hypothalamus.

The mesolimbic areas are part of the reward system. Through projections, they connect the ventral tegmental area (VTA) in the midbrain to the nucleus accumbens (NAcc), the limbic areas (including the amygdala), as well as the prefrontal cortex (PFC) in the forebrain. Together with the nigrostriatal areas, the mesolimbic system regulates motivation toward sexual behavior/stimuli and selective attention toward relevant (sexual) stimuli. Moreover—together with the noradrenergic system—the mesolimbic and nigrostriatal areas steer general psychophysiological arousal in the brain and then the periphery. The nigrostriatal system functionally connects the substantia nigra with the striatum (caudate nucleus and putamen). In general, this dopaminergic pathway modulates movement. The dopaminergic system located in the

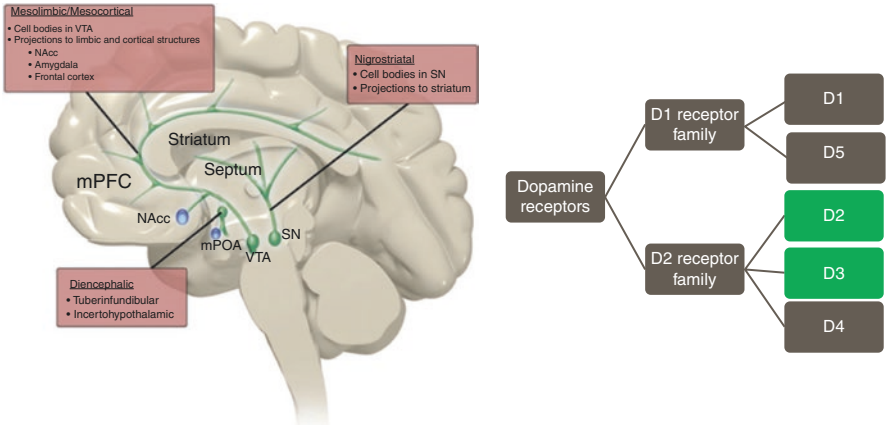

Fig. 7.2 The dopaminergic system and the dopamine receptor family. Sites of synthesis in the brain stem and diencephalon with projections to striatal, limbic, and cortical brain areas. The green boxes highlight important subreceptors for regulation of sexual drive (modified according to Pfaus, 2009 [12], used with the kind permission of Elsevier and Krüger & Kneer, 2017 [13]). *NAcc* nucleus accumbens, *SN* substantia nigra, *VTA* ventral tegmental area

hypothalamus controls secretion of prolactin from the adenohypophysis through inhibitory effects and also affects further sexual processes such as sexual arousal. All in all, dopamine mainly seems to hold excitatory effects on sexual functioning. In healthy men, dopamine administration has been shown to lead to an increase in sexual appetite and sensation [9]. These effects however seem to be gender specific as the results could not be demonstrated in women [10]. Dopaminergic mechanisms therefore might differ between genders. This assumption is in line with studies investigating the side effects of dopaminergic substances such as dopamine agonists, L-DOPA, or antipsychotics with partially dopamine-agonistic effects (e.g., aripiprazole). Hypersexuality, pathological gambling, or compulsive buying (impulse control disorders) appears more frequently in men than in women, and stimulation of D3-compared to D2-receptors seem to be stronger in terms of increasing respective impulses [11]. And yet, antipsychotics with strong D2-antagonistic effects can lead to severe inhibition of sexual functioning. It remains unclear whether this inhibition is due to an increase in prolactin levels (hyperprolactinemia) or appears as the result of dopamine antagonistic mechanisms. Although some studies are concerned with the effects of dopamine on sexual functioning, little transfer to clinical research has yet occurred.

7.1.2.2 The Serotonergic System

The serotonergic system is a complex neurotransmitter system incorporating seven receptor types and various subtypes (Fig. 7.3). Serotonin is synthesized in the raphe nuclei in the brain stem. Various projections reach the spinal cord, the hypothalamus, and limbic (mPOA "medial preoptic area," nucleus accumbens) and cortical areas. Serotonin modulates satisfaction, satiation, and relaxation. Thus, its effect on sexual

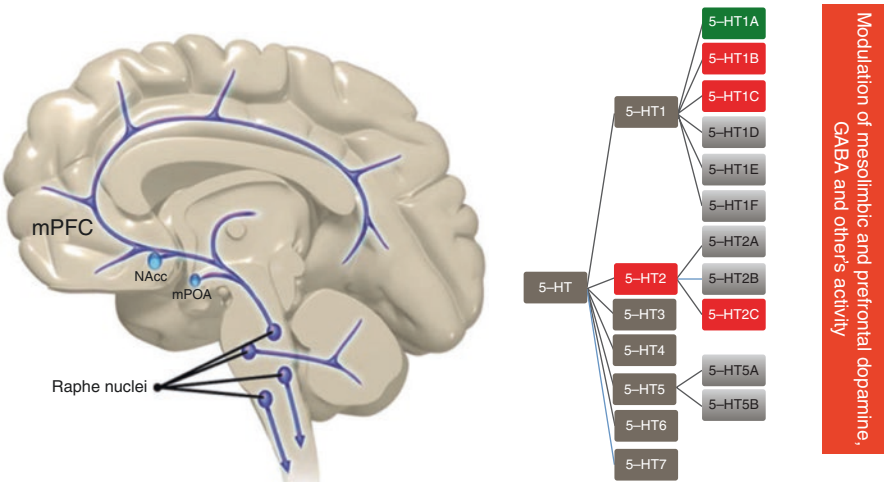

Fig. 7.3 The serotonergic system with serotonin receptor families. Sexual inhibitory receptors are marked in red, and sexual excitatory subreceptors are marked in green (modified according to Pfaus, 2009, used with the kind permission of Elsevier and Krüger & Kneer, 2017 [13]). *5-HT* 5-hydroxytryptamine, *mPOA* medial preoptic area, *NAcc* nucleus accumbens

function is mainly inhibitory (for receptor subtypes 5-HT (5-hydroxytryptamine)$_{2C}$, 5-HT$_{1B}$, 5-HT$_{1C}$), although stimulation of receptor subtype 5-HT$_{1A}$, a receptor responsible for decreased serotonin and increased dopamine transmission, can lead to excitatory effects [14, 15]. As shown in animal studies, in parts of the hypothalamus (anterolateral areas), serotonin release is increased during ejaculation, while dopamine release is decreased in the nucleus accumbens. These processes—with potential involvement of endogenous opioids and endocannabinoids—might be able to explain sexual satiation and the refractory period [12]. Serotonin also seems to be able to inhibit (esp. in mesolimbic and hypothalamic areas) or facilitate release of dopamine, depending on receptor subtypes. Through connections to the spinal cord, serotonin inhibits sexual reflexes, i.e., automatically executed sexual functions such as erection, lubrication, and orgasm (ejaculation).

It is of great importance to be aware of the different receptor subtypes and the effects that serotonin can have on human sexual function when it comes to choosing and prescribing medication. Moreover, patients need to be informed about the potential side effects of serotonergic medication, which is widely used for the treatment of depression. Studies have shown that even different compounds with a shared mechanism of action (e.g., selective serotonin reuptake inhibitors (SSRI)) might widely differ in their effects on sexual function. Sertraline medication, for example, most frequently causes sexual dysfunction, while escitalopram medication may less often affect sexual function [16]. Imaging studies investigating the side effects of antidepressant medication on sexual function demonstrate a decreased activity of different parts of the cingulate cortex during processing of visual sexual stimuli [17].

7.1.2.3 The Noradrenergic System

The noradrenergic system is important in order to generate adequate psychophysical activation necessary for sexual responses. A low noradrenergic tone could lead to fatigue and inappetence, while a (too) high noradrenergic tone could lead to stress and overexcitement. In case of premature ejaculation and/or fear of failure, stress, or anxiety, elevated brain noradrenergic levels can be expected. Noradrenaline, generated in the locus coeruleus, projects to the hypothalamus, the spinal cord, the cerebellum, the limbic system, and various cortical areas [12]. Moreover, the noradrenergic system is connected to sex steroids. Estradiol, for instance, can increase the synthesis of noradrenaline, as demonstrated in animal models. Also, pharmacological compounds (e.g., trazodone) with peripheral effects on α1-receptors may lead to priapism, a painful state of enduring erection. Substances affecting β-receptors by contrast may lead to inappetence and depression [18].

7.1.3 Clinical Implications of Monoaminergic Factors

Cerebral monoamines are widely used as pharmacological treatment by neurologists and psychiatrists. Serotonin, dopamine, and noradrenaline play key roles in the central nervous system. They are synthesized in major areas of the brain stem and show extensive projections to the limbic system, the cortex, and—for serotonin and noradrenaline—the spinal cord. That way they impact multiple areas of human condition and behavior. While most SSRIs and SNRIs potentially lead to sexual dysfunction, other compounds show less effects on sexual function: bupropion is a selective dopamine and noradrenaline reuptake inhibitor, and like agomelatine, a melatonin agonist, it rarely affects sexual function while used to treat mood disorders.

When treating sexual disorders, such as hypersexuality, premature ejaculation (PE), or paraphilias, SSRI side effects however might be useful. In some countries, dapoxetine is an approved SSRI for treatment of PE. Basically, all compounds with a serotonergic mechanism of action may be effective in treating PE (esp. paroxetine (ninefold extension of ejaculation latency; [19]) or clomipramine up to 50 mg). In the USA, flibanserin, a compound once developed to treat depression, is an approved drug for treatment of hypoactive sexual desire disorder (HSDD) in women [20]. The effects, however small, once more demonstrate the potential that lies within pharmacological treatment of sexual dysfunction and the importance of neurotransmitters for sexual function.

7.1.4 The Effects of Neuropeptides on Sexual Response

Neuropeptides, such as prolactin, oxytocin, or vasopressin, modulate behavior. The latter two are also known as “social neuropeptides” as they primarily affect social behavior [21]. Prolactin, however, although affecting more than 300 human processes, is mostly known for its effect on lactation in breastfeeding women [22]. The

effects of prolactin on sexual response are mostly inhibitory. After reaching orgasm, prolactin levels are increased by 50% in men and by 100% in women [23]. Prolactin—among endogenic opioids such as ß-endorphin—could play a role in sexual satiation. While studies in animals show that endogenic opioids act in the central nervous system and affect the reward system [12], an increase in prolactin might lead to sexual satiation through inhibition of specific dopamine-related neurons. Thereby, sexual drive could decrease [24–26]. Further inhibitory effects of prolactin can be observed in the clinical use of antipsychotics. After intake of antipsychotic medication with strong D2-antagonistic effects (such as haloperidol, risperidone, or amisulpride), chronic hyperprolactinemia has been observed. Despite these findings, the relevance that prolactin holds for male physiology remains widely unknown.

Despite thousands of publications on oxytocin during the last 20 years, there is no approval for this peptide in any psychiatric or sexual disorder. Although there is evidence that oxytocin facilitates species propagation in general [27], studies on the effects of oxytocin on sexual drive and function were predominantly negative (Burri et al., Behnoush et al.), while there might be some effect on partner interaction and perception of postorgasmic state. Case reports indicate some effect in delayed orgasm; however, a clear recommendation is not possible.

7.2 Peripheral Mechanisms Regulating the Arousal Response

In the periphery, sex steroids and neurotransmitters have substantial effects in both men and women in the cavernosal tissues.

In men, erection can be triggered through two mechanisms: reflexogenic and psychogenic erections. Psychogenic erections are due to sexual cues (visual, olfactory, fantasies, auditory) and are generated and processed in the brain as described above. Reflexogenic erections are due to genital (primarily penile) stimulation. They have in common an activation of sacral neurons (S2–S4) and from there via the cavernous nerve, a triggering of the erectile mechanism by the parasympathetic fibers. The cavernous nerve initiates the process signaling relaxation of the arterial and corpus cavernosal smooth muscle cells, increasing the penile blood flow and thereby inducing an erection.

The arousal response is a balance between neurotransmitters promoting sexual arousal (relaxation of smooth muscle cells) via the parasympathetic pathways and inhibiting (contracting smooth muscle cells) via the sympathetic pathways. The sympathetic nerve terminals release noradrenaline (NE) which contract smooth muscle cells and play a major role in flaccidity and detumescence. NO and acetylcholine are the major parasympathetic components. NO is produced in the nerve endings (nNO) and in the endothelium of blood vessels and corpus cavernosum (eNO). It diffuses into the smooth muscle cell and induces relaxation by increasing the intracellular level of cyclic nucleotide guanosine monophosphate (cGMP). Acetylcholine has an indirect effect as it stimulates NO and eNO and inhibits NE

release [28]. Androgens also have a peripheral effect in men, where they maintain the structural and functional integrity of the penile tissue, maintain the function and plasticity of the penile nerve and ganglia, and stimulate the activity of NO synthase [29].

In women, the arousal response, genital vasocongestion, vaginal lubrication, and clitoral engorgement are also a result of increased genital blood flow. Several studies have shown the presence of adrenergic, cholinergic and non-adrenergic, and non-cholinergic (NANC) neurotransmitters in the clitoral and vaginal tissue, regulating the smooth muscle tone and thereby the sexual arousal response in an interaction with the effect of sex steroids. The most important neurotransmitters in women are NE that contracts smooth muscle cells and thereby decreases genital blood flow. In contrast, vasoactive intestinal polypeptide and NO relax smooth muscle cells and thereby increase genital blood flow inducing lubrication and engorgement of the clitoris and labia. Sex steroids (estrogens and androgens) are crucial for the maintenance, structure, and function of the genital tissue. In women, estrogens have a direct role on the peripheral sexual response in women, where they are important for blood flow to the vagina and clitoris and lubrication, which is illustrated by the reduced lubrication that many women experience associated with estrogen deficiency during menopause. Estrogens and androgens facilitate the maintenance of the genital tissue, and the NANC nerve stimulated genital blood flow, as well as modulated neural and endothelial NO synthase and thereby the smooth muscle relaxation [30].

7.3 Brain-Body Functional Connection: Findings from (Functional) Imaging

Nowadays, imaging studies are able to identify activation of specific brain areas during sexual arousal or processing of (mostly visual) sexual stimuli. Cortical and subcortical activation has been demonstrated in the occipitotemporal cortex, in the precentral gyri and cinguli gyri, and in the superior and inferior parietal lobules during visually induced sexual arousal. Moreover, activation has been detected in parts of the frontal lobe and several thalamic regions, the ventral striatum (VS), and the amygdala. Studies in men (homosexual and heterosexual) show that visual presentation of preferred sexual stimuli leads to activation in the hypothalamus, the amygdala, the claustrum, the VS, the central lobe, the anterior cingulate gyrus, and the orbitofrontal cortex (OFC) [21]. It seems that activation of the hypothalamus (alongside the VA) reflects the intensity of sexual stimuli best: the stronger the activation of the hypothalamus, the higher subjectively reported sexual arousal [31, 32]. Reaction patterns to specific stimuli allow for a classification of participants concerning their sexual orientation [33] and preference (in this case, pedophilia [34]). All in all, results correspond to a behavioral neurobiological model proposed by Redouté and coworkers (2000) [35]. This model describes cognitive, motivational, emotional, and autonomous components of sexual stimulus central processing [35].

Functional imaging has been able to demonstrate deviant central processing of sexually relevant stimuli in men and women who suffer from sexual dysfunction [36–39]. Participants with hypoactive sexual desire disorder (HSDD), for instance, show less activation of brain areas connected to the processing of sexually relevant stimuli while presenting more activation of cortical brain areas connected to social and visual cognition, such as self-observation. Moreover, they show strong activation of prefrontal brain areas, which altogether leads to the hypothesis of increased observation and evaluation of individual sexual reaction in people with HSDD. This increased attention toward oneself in turn might lead to dysfunctional emotional reactions such as the experience of insufficiency, shame, or fear of failure. Meta-analyses of sexual stimuli central processing reviewed existing models and developed new ones. One model proposes a similarity of involved brain regions between sexual behavior and other reinforcement such as intake of water and food or social contact. Georgiadis and Kringelbach (2012) describe the so-called pleasure cycles that consist of expectation, consummation, and satiety [40] (Fig. 7.4).

Another study conducted by Poeppl and coworkers (2014) [41] identified two sets of neuronal structures: one set primarily associated with psychosexual arousal (i.e., a mental representation of arousal) and a different set primarily connected to somatosexual arousal (i.e., lubrication or penile erection). Psychosexual arousal seems to be connected to neuronal structures concerned with cognitive and affective evaluation of sexually relevant stimuli, the creation of sexual appetite, top-down modulation of attention and stimulus processing, and the initiation of autonomous processes (i.e., multiple cortical areas, the amygdala, the hypothalamus, and the basal ganglia). Somatosexual arousal however seems to be connected to neuronal structures concerned with processing of somatosensory stimuli, emotion, and autonomous functions (several areas in the region of the cingulate gyrus, the insula, and the basal ganglia). Moreover, both neuronal sets seem to be subcortically interconnected via the claustrum and putamen, so that information exchange between these areas is enabled.

7.4 Sex, Bonding, and Age: (Why) Does Our Sexual Appetite Deteriorate?

"In our 20s, we have sex; in our 30s, we have dinner." The older we and our relationships get, it seems the less interested we are in sex. In fact, there is evidence that interest in pleasure and exploration wanes with old age [40]. Studies using SPECT (single-photon emission computed tomography) show a 6–8% loss of dopamine transporters per decade [42, 43]. Keeping in mind that dopamine holds excitatory effects for sexual response and modulates lust and sexual motivation, its loss with age could explain a decrease in sexual interest. Evolutionarily speaking, a loss of dopamine and thereby sexual appetite seems reasonable as reproduction usually has been completed at a certain stage in life.

Moreover, the formation of partner bonds seems to lead to a decrease in sexual appetite. In rodents, mating leads to an activation of the VTA, thus resulting in

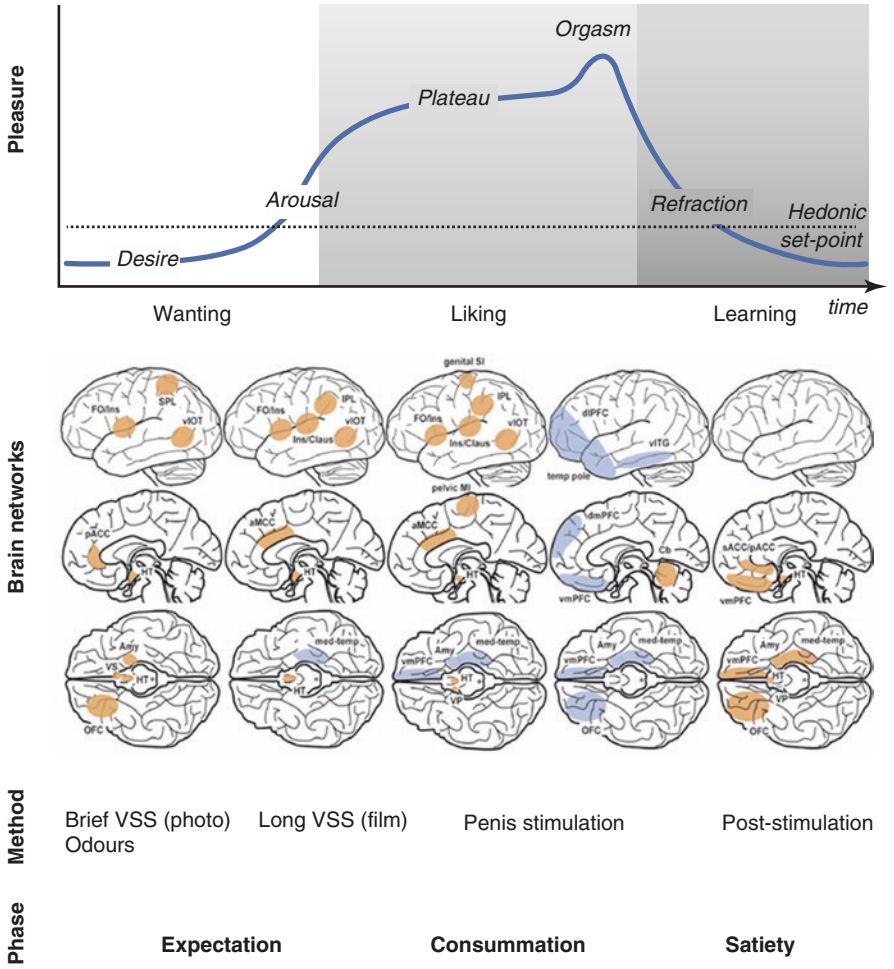

Fig. 7.4 The functional neuroanatomy of the sexual response cycle in humans and its overlap with models in drug addiction. Note the fine balancing between activated (orange) and inhibited brain areas (blue). With kind permission from Georgiadis and Kringelbach (2012) [40]

increased dopamine activity in the prefrontal cortex (PFC) and nucleus accumbens (NAcc). The oxytocin systems in the medial nucleus of the amygdala (MeA), the PFC, and the NAcc are also activated during mating. The concurrent activation of both systems potentially results in the development of a pair-bond formation [44–46]. In monogamous prairie voles, higher densities of oxytocin receptors (OTR) in the NAcc, the caudate putamen (CP), and the PFC [45, 47] are found compared to montane voles with a polygamous bonding style. The importance of oxytocin and vasopressin for bonding has further been demonstrated in animal studies. After administration of oxytocin in female voles and administration of vasopressin in male voles, an acceleration of pair-bonding has been observed [48].

Dopamine, on the other hand, decreases over time during sexual relations in a pair-bond. Animal studies have shown that the presentation of a novel sexual stimulus (e.g., a novel mate) leads to reinitiation of sexual activity in a state of sexual satiation and goes in hand with increased levels of dopamine in the NAcc [49]. This phenomenon, known as "the Coolidge effect," tries to give an explanation for sexual boredom in long-term relationships. Its name goes back to Calvin Coolidge, 30th President of the United States (1923–1929). Story has it that the President and his wife were taken off on separate tours when visiting a government farm. Mrs. Coolidge asked the man in charge of the chicken pens if the rooster copulated more than once a day. The man replied: "dozens of times" and Mrs. Coolidge asked him to "tell that to the President." The president, however, when presented with the rooster situation, asked: "Same hen every time?". When informed that the rooster had "a different one each time," he asked to "tell that to Mrs. Coolidge." Studies in ram and sheep demonstrate the effect: when repeatedly exposed to the same mate, time to ejaculation in rams increases over time. When exposed to novel mates, however, time to ejaculation in rams stays short and does not change significantly [50].

When counseling couples with sexual dissatisfaction, it is important to keep in mind that novel sexual stimuli—or in more therapeutic language "common new experiences"—can renew sexual interest and stimulate the release of dopamine. Moreover, imaging studies have shown that activation patterns (e.g., dopaminergic areas such as VTA or dorsal striatum) can be similar for long-term and short-term romantic love couples that describe vivid romantic feelings for their partner even after many years. Long-term romantic love in these people further shows activation of serotonergic and opioidergic areas connected to affiliation (e.g., globus pallidus, substantia nigra, n. raphe, insula, cingulate gyrus) [51]. It seems that long-term romantic love is associated with more calmness and serenity, yet it does not exclude the experience of desire and lust. Furthermore, it is important to distinguish between intimacy and romance. While romance can develop quickly and unexpectedly, it takes time to build up intimacy. The higher the level of intimacy a couple has reached over time, the more challenging it becomes to experience desire, passion, and excitement. Fluctuations in the level of intimacy seem to hold a key, especially for women, while men do not necessarily need such changes of intimacy in order to experience desire [52]. Another important factor, when it comes to "renewing the flame," is shared and novel experiences, as curiosity and novelty hold a chance for increased dopamine levels. In contrast, perception of pain or erectile dysfunction may inhibit these mechanisms as a function of negative feedback to the brain.

7.5 Key Messages

- Hormones and neurotransmitters of the peripheral and central nervous system play a pivotal role in regulating sexual functions.
- An understanding of excitatory (e.g., dopamine, noradrenaline, testosterone) and inhibitory factors (e.g., serotonin, prolactin, opioids) is not only helpful for a

basic understanding of sexual functions but also for appropriately considering pharmacological interactions and side effects on sexuality.
- There is neuroplasticity also in the "sexual brain," and this may be significantly influenced by a number of factors such as personal history, trauma, drug intake, age, length of relationship, and many others, and these need to be carefully assessed in every sexual history taking.

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Physicians' Attitude Towards Sexuality

8

Brittany K. Sommers and Stephen B. Levine

8.1 Introduction

Sexuality is a vital dimension of human experience. For most people, some aspect of their sexuality will at some point become problematic. For physicians, particularly psychiatrists and other mental health professionals, the overarching question is what relationship should we have to these highly prevalent challenges? Are we expected to try to assist with sexual adjustment along with our many other responsibilities? This entire book is premised on a positive answer to the question.

8.2 Development of Sexual Medicine

Medicine has not been a homogeneous entity for over a century. Beginning with primary care and extending to every subspecialty, physicians have historically carved out a specific range of problems with which they feel competent. Until 1970 when Masters and Johnson published *Human Sexuality Inadequacy*, expertise in sexual problems was presumed to exist in psychiatry [1]. Nonetheless, most men with sexual dysfunction first consulted with an urologist, and most women mentioned their worries in passing to their gynecologists. Masters and Johnson's work exposed psychiatry's lack of a firm knowledge in this area.

Several decades ago, a group of physicians recognized the high prevalence of sexual problems and the paucity of physician expertise in matters of sexual identity and function. In response, they created the term sexual medicine. The founders were largely urologists and gynecologists. Sexual medicine quickly attracted psychologists, nurses, and physical therapists. Relatively few psychiatrists became involved. Interest in sexual medicine greatly expanded upon the 1998 approval of Viagra®.

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Thereafter, the focus began to shift to an elucidation of women's sexual function difficulties and to the search for a comparably effective medication for their dysfunctions. Most recently, the field has focused on improving our understanding of the neurobiological underpinnings of human sexual response and identifying corresponding interventions. A product was approved for younger women's loss of sexual desire, Flibanserin, but it has been greeted with considerable controversy and poor sales.

Despite the development of sexual medicine professionals, most physicians do not feel prepared to take responsibility for helping with sexual problems. This is despite the fact that a patient's sexual problems are often related to the disease being treated and may greatly impact their quality of life. The integration of sexual concerns into mental health and substance abuse care has still not occurred, even on a modest scale. This is not unique to psychiatry as obstetrics-gynecology, internal medicine, oncology, and surgery can also be so characterized. For instance, only 8% of outpatient gynecologists in Switzerland reported routinely addressing sexual concerns with their patients [2]. Their explanation: more important concerns and lack of time [2]. Among obstetricians and gynecologists in the United States of America, 40% reported routinely addressing sexual concerns with their patients, but less reported assessing sexual orientation/identity, sexual satisfaction, and sexual pleasure [3].

A review of the published literature on sexuality via PubMed indicates that most of the articles involve the treatment of the sexual side effects of medication and sexual consequences of physical diseases. The psychotherapy of sexual dysfunction that focuses on the current and remote antecedents of these problems is almost nonexistent. Such articles are usually found only in textbooks on sexuality [4, 5].

8.3 Conceptual Tools

Biological, psychological, interpersonal, and cultural forces combine in various proportions to create a broad range of sexual worries and dysfunctions [6]. Physicians can positively influence some of these many specific contributions to sexual concerns. We sometimes have the power to reassure, ameliorate, or cure what life brings to our patients. But even when we cannot otherwise significantly help, we can be aware that sexual problems often emerge from physical and mental diseases and that they can also lead to new physical and mental difficulties. Since neither medical nor residency education pays much attention to sexual issues, it is not surprising that sexual concerns are rarely thoroughly investigated and understood in most practice settings. This chapter aims to provide medical professionals with four conceptual tools for interacting more skillfully when their patients, young or old, experience a sexual concern.

The first conceptual tool is the knowledge that all illnesses, medical or psychiatric, can be a barrier to sexual behavior and that sexual problems, whatever their sources, can lead to new physical and emotional problems.

This knowledge makes it difficult to ignore these patient burdens. Numerous medical and surgical interventions challenge patients' ability to maintain a partnered or solo sexual life. Over the last four decades, numerous studies have verified that sexual problems are significantly more prevalent among those with physical and mental illnesses than in the control populations [7, 8]. Doctors can readily learn about illness-induced, medication-induced, or surgically induced sexual dysfunction by simply asking.

The second conceptual tool is knowing that there are seven components of sexuality.

This understanding provides a practical answer to "What is sexuality?" With this answer, physicians can accurately categorize their patients' complaints [9]. For example, a physician will recognize that a man who seeks help for uncontrollably rapid ejaculation has a sexual function complaint, a woman who is thinking about living as a man has a gender identity concern, and a man with a shoe fetish who cannot ejaculate has impairments in both sexual identity and function realms. There are three components of sexual identity and four components of sexual function:

1. Sexual Identity
   (a) Gender Identity—sense of oneself as agender, feminine, gender fluid, masculine, or other identities
   (b) Orientation—inclination to create romantic attachments to, and engage in sexual behavior with a class of gendered others creating asexuality, bisexuality, heterosexuality, homosexuality, pansexuality, or other orientations
   (c) Intention—what an individual wants to be done to one's body during sexual behaviors and what the individual wants to do with the partner's body
2. Sexual Function
   (a) Sexual desire—inclination to express oneself sexually alone or with a partner
   (b) Sexual arousal—physiological process of sexual excitement which is subjectively and genitally manifested
   (c) Painless genital touch and penetration
   (d) Orgasm—distinct physiological event combining intense pleasure, ejaculation and a refractory period in males, and body-wide relaxation

As physicians become interested, knowledgeable, and skillful in recognizing the negative effects of physical and mental illness on sexual identity and function, this outline becomes automatically employed in how professionals think about and discuss sexual life.

The third conceptual tool is the recognition of the benefits of addressing sexuality within the doctor-patient relationship.

Physicians' knowledge includes genital anatomy, physiology, and pathophysiology, but physicians rarely know what patients do with these organs other than reproduce with them. Patients' sexual identities and functional experiences are closely tied to their emotionality, personal psychology, and relationship patterns [10]. Knowledge of patients' sexuality gives the physician a window into their capacity to love and be loved because it illustrates their ability or inability to relate to another person [11].

Patients often bond more strongly to doctors who seem to be interested in the person with the illness rather than just the illness. This improved bond helps them to feel comfortable bringing up other concerns related to their health. Physicians become a more trusted ally in their quest to cope with their life circumstances; we build their sense of well-being and their resilience to meet challenges [12]. Talking about sexuality strengthens the doctor-patient bond and sets the stage for future better health care. Because sex involves personal and interpersonal processes, the expectation for in-depth discussions of sexual matters falls more heavily upon psychiatrists and other mental health professionals.

Not asking about sexual concerns can interfere with treatment of other illnesses. Sexual side effects of medications, if not discussed or addressed, can lead to noncompliance with medication for these other conditions. Not discussing expected sexual side effects of medical interventions can lead to the development of needless psychogenic sexual problems. For instance, there is more erectile dysfunction after a transurethral resection if the surgeon does not inform the patient that retrograde ejaculation is an expected side effect of the operation [13]. Unaddressed sexual and intimacy concerns can significantly contribute to depression, anxiety, and psychosomatic illnesses.

Additionally, not asking about sexual concerns can negatively impact the patient's experience. At best, a likely important part of the patient's life is being ignored. At worst, the physician may make inaccurate assumptions about the patient's sexuality or behavior. These assumptions or stigmatizing statements can complicate or spoil the relationship with the patient. Whereas asking about a patient's intimacy concerns and responding with attention, reassurance, and acceptance, both allow for addressing the sexual concerns and build the doctor-patient relationship.

The fourth conceptual tool is that identifying the physician and patient barriers to addressing sexual matters is impressively helpful in overcoming them.

By first focusing on physician barriers, the patient barriers will be illuminated [12].

Training deficiency: Most physicians feel unprepared and not particularly interested in directly offering care for sexual identity, sexual dysfunction, and relational problems. Physicians prefer to handle symptoms they better understand. Graduate

and post-graduate curricula do not expend much effort on sexuality. Continuing education programs tend to focus on medical or psychiatric disorders as though sexual disorders do not exist apart from SSRI-induced sexual dysfunction. In medical schools, there is no emphasis on understanding the psychological and interpersonal meanings that sex has in the quest for intimacy, recreation, and love. Trainees encounter few teachers who model and supervise the evaluation and treatment of sexual identity and function problems in psychiatric residencies. Given the press of other topics felt to be more basic to competence in any particular specialty, sexuality is a curricular afterthought.

Time deficiency: Continually increasing demand for shorter patient interactions can leave sexual health questions seemingly unimportant, or at least not as essential or pressing as other components. Sometimes, however, insufficient time is the rationalization for avoidance. The treatment of premature ejaculation can be simply managed with an SSRI and requires very little of the physician's time [14]. Unfortunately, many physicians upon hearing of any male sexual complaint quickly hand out a PDE-5 inhibitor—illustrating treatment as an avoidance of evaluation.

Personal discomfort: There can be multiple sources of physician discomfort [9]. Physicians may not ask about sexuality due to their personal sexual concerns. Some wonder whether listening to sexual concerns will trigger distressing memories of their own past sexual experiences or current sexual anxieties. Some fear the patient's discovery of the doctor's lack of knowledge or experience, while others fear patients will be able to tell that they disapprove of the patients' sexual behaviors. No matter how experienced one becomes in this arena, there remains the possibility that a few patients' sexual patterns will shock and offend the doctor's values. Some fear their anxiety and embarrassment around sexual topics will be evident. It is as though the doctors already know that every conversation about a patient's sexual life has the potential to cause them to reconsider their own sexual attitudes and values. Some conversations will stimulate transient, weak sexual arousal, which may create an intense discomfort until the physician understands the ordinariness of this and its lack of danger.

Physicians may also worry about patient discomfort and reactions to their sexual questions. They assume that their patients may feel their sexual life is none of the doctor's business. The doctor does not want to be experienced as intrusive or be viewed as an uncouth doctor because of the patient's embarrassment. Particularly when the doctor and the patient are from different cultures, the physician may not be certain how the inquiries will be received.

The solution for this potentially worrisome situation and other sources of patient discomfort is to make sure that the patient understands the relevance of the inquiry to their sexual lives. Making sure that the patient understands why the questions are being asked prevents patients from the misperception that the doctor is flirting, nosy, or rude. It also reduces the likelihood of a sexual harassment accusation. All the physicians' and patients' barriers are readily overcome by professionalism.

Physicians should strive to quickly become the calmest person in the room during sexual topic discussions. This can be accomplished from the first experience of asking the patient about sex. Our calmness helps the patients to be calm. The

physician focuses on helping the patient tell his or her story. When a patient brings a sexual concern as a chief complaint, the doctor can just ask the patient to elaborate, to say more about it, and to provide information about what is going on in the patient's life. Sexual matters need not be addressed in the first session when the patient presents with another problem. Over time as a doctor has more experience with the patient, an awareness of the patient's sexual life and concerns can emerge. It amazes many psychiatrists and physicians how often their patients bring up the quality of their sexual and interpersonal lives without being asked about it. The problem is that the doctor does not know how to respond to it. If we are interested in learning more about this fascinating subject, we need only to avoid being demeaning, judgmental, or confusing a diagnosis with a serious psychopathology. The doctor's calm manner and interest will be experienced as compassionate and understanding.

8.4 Helping Patients to Discuss Their Sexuality

Professionals who are new to considering their patients' sexuality sometimes are helped by having a few opening comments to tell the patient that it is fine to discuss their sexual lives, now and in the future. The doctor's opening comments can be something akin to:

1. How are these problems that you have told me related to your sexuality?
2. What about your sexual life?
3. I am not clear about your sexual identity. Can you clarify that for me? (If the patient is willing to tell the doctor about their orientation, the doctor can then ask about gender identity and intention if these dimensions of identity are not mentioned.)
4. You have not mentioned your sexual life? How is that going for you at this time? (The doctor then can easily ask about desire, arousal, orgasm, and penetration capacities. This clarifies the doctor's understanding of sexual life and lets the patient know that the doctor is knowledgeable.)
5. It seems that everyone who sees me has some concern about his or her sexual identity or sexual function. Can you tell me about your sexual concerns, if any?
6. Do you mind discussing your experiences with sex at this time or would you prefer to wait to another session?

However, if the patient answers the questions in an affirmative way (respect the wish to delay), the professional then needs to encourage further dialogue. This is usually simply accomplished by saying, "Tell me a more about that?" or "Say more" or "Explain that to me, please." This is sometimes referred to as giving permission to open the dialogue with the professional.

Sometimes the patient's concern can be addressed with information, but more often the patient has much more to relate about the quality of current or past relationships with partners. Many professionals may simply want to quickly impart

knowledge. However, as experience in this arena increases, the doctor will see that she or he is helping more by listening, empathizing, and clarifying patient confusion as the patient struggles to overcome personal inhibitions, interpersonal conflicts, and partner's expectations. Professionals should not expect to quickly cure, although sometimes that is possible, particularly with erectile problems and premature ejaculation. Rather, they might think of themselves as a student of patients' sexuality and that their learning about this complexity will continue throughout their professional lives.

Case Report 1
A young man who was experiencing frequent and impairing obsessions and compulsions was started on an SSRI by his psychiatrist. He quickly experienced a decrease in these symptoms, but despite this improvement, he soon grew reluctant to continue the medication. At first, he was hesitant to explain his change in attitude toward his medication. With a gentle inquiry, he spoke of his new sexual function complaint "I cannot have orgasm anymore." This confession seemed to strengthen our therapeutic bond. We made a call to his psychiatrist who gave us several recommendations to assist him until his medication regimen could be altered. Now, he can attain orgasm again with the understanding that his nervous system is a bit downregulated by his regimen. He no longer panics about this.

8.5 Key Message

- We endeavor to approach our patients with openness and eagerness [10]. By patiently listening, we learn about their lives and they gain a broader perspective about their sexuality. Just listening to these sexual stories, complaints, problems can be helpful to patients because they may begin to think about them in a new way. Patients reflect on the comments and questions from their doctor and often improve somewhat after the contact with the interested physician. Do not be surprised that they want to bring up the topic at the next visit.

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Sexual Interview: Mental Health and Relationship Issues

9

Francesca Tripodi

9.1 Introduction

The core activities of sexual counselors and sexual therapists are to understand a thorough and accurate appraisal of the client's presenting problems and concerns, and all other information relevant to defining the issues, in order to plan interventions and predicting and evaluating outcomes. A detailed sexual history is the cornerstone for all sexual problem assessments and sexual dysfunction diagnoses. Diagnostic evaluation is based on an in-depth sexual history, including sexual identity (in the four components that constitute it: biological sexual factors, gender and role identity, sexual orientation), sexual activity and function (previous and current one), overall health and comorbidities, partner relationship and interpersonal factors, and the role of cultural and personal expectations and attitudes.

The third committee of the *Fourth International Consultation on Sexual Medicine* (ICSM) has reviewed a large body of publications relevant to the diagnostic evaluation of sexual function in men and women, including the advancement made in specialized testing on male and female sexual dysfunction (SD). The results and recommendations of the SD management committee [1], and of other relevant ICSM committees [2–5] represent the guide for this chapter. Suggestions highlighted in the volumes *The EFS/ESSM Syllabus on Clinical Sexology* [6] and *The ESSM Manual of Sexual Medicine* [7], which to date represent the guidelines for the European curriculum in clinical sexology and sexual medicine, are considered as well.

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9.2 Clinical Evaluation of Sexual Dysfunctions in Psychiatric Population

The SD management committee of the ICSM endorses three basic principles for clinical evaluation and management of sexual problems in men and women [1]. These are briefly as follows:

- *Principle 1*—Adoption of a patient-centered framework, with emphasis on cultural competence in clinical practice
- *Principle 2*—Application of evidence-based principles in diagnostic and treatment planning
- *Principle 3*—Use of a similar management framework for men and women

Taken together, these three principles provide a balanced and integrated approach to clinical evaluation and treatment of SDs. The theoretical framework within which to consider all sexual complaints is the bio-psycho-social model. Therefore, clinicians should differentiate sexual problems bearing in mind a multifactorial assessment where biological, cognitive, emotional and behavioral, contextual, and interpersonal contributing factors and their ongoing interacting relations play a role in the individual's current sexual functioning and satisfaction.

When the client is a psychiatric patient, we face a first problem with the results of the evaluation process. To diagnose a SD according to DSM-5, it is necessary that the symptoms that characterize the disorder occur for at least 6 months, appear in all or almost all sexual episodes (more than 75% of the time), and cause personal distress. The SD should not be a direct consequence of a non-sexual mental disorder, severe relationship distress, or other significant stress factors and should not be attributable to the effects of a substance/drug or other medical conditions; otherwise the diagnosis cannot be made. The DSM-5 suggests to consider, among the etiological factors, the influence of the following that, when present and consistent, should exclude the diagnosis of SD:

(a) *Partner-related factors* (e.g., partner's sexual problems, partner's health status)
(b) *Relationship factors* (e.g., poor communication, discrepancies in sexual desire)
(c) *Individual vulnerability factors* (e.g., negative body image, history of sexual or emotional abuse), psychiatric comorbidity (e.g., depression or anxiety) or stress factors (e.g., job loss, mourning)
(d) *Cultural/religious factors* (e.g., inhibitions related to prohibitions against sexual activity, negative attitudes toward sexuality)
(e) *Medical factors* relevant to prognosis, course or treatment

The readers surely understand that many of these conditions are concurrent with a sexual dysfunction in psychiatric patients: mental disorders, drug intake, severe relationship conflicts, traumatic experiences, substance abuse, etc. That is a reason why many psychiatrists do not take the time to assess the sexual health of their patients, considering it as secondary to all the other health issues and not that important for the overall well-being. To my opinion instead, in psychiatric population when the DSM-5's A-B-C criteria for a SD are met (symptoms, duration, distress), it could be the case to adopt the concept of *double diagnosis*, where the mental syndrome is the main and primary focus of attention, but the sexual disorder is evaluated and treated as well, regardless of criterion D (exclusion through the specifiers abovementioned).

The ICD-11 expands inclusion criteria for the diagnosis of SD [8], including all those etiological factors that can contribute to the onset or maintenance of the symptom, and in fact it is better suited to the diagnostic process on populations with psychiatric comorbidity. First of all, the ICD-11 defines the sexual response as "a complex interaction of psychological, interpersonal, social, cultural, physiological and gender-influenced processes." Any of these factors may contribute to the development of sexual dysfunctions, which are described as syndromes that comprise the various ways in which people may have difficulty experiencing personally satisfying, non-coercive sexual activities. Second, where possible, categories in the proposed classification of SD apply to both men and women, emphasizing commonalities in sexual response, rather than differences as assumed in the DSM-5. Third, "satisfactory" sexual functioning is defined as being satisfying to the individual. If the individual is satisfied with his/her pattern of sexual experience and activity, even if it is different from what may be satisfying to other people or what is considered normative in a given culture or subculture, a sexual dysfunction should not be diagnosed. As a consequence, the diagnosis is not valid also in case of (a) unrealistic expectations on the part of a partner; (b) discrepancy in sexual desire between partners; (c) inadequate sexual stimulation. Last, but not least, the ICD-11 classification uses a system of harmonized qualifiers that may be applied across categories to identify the important clinical characteristics of the sexual dysfunctions. These qualifiers are not mutually exclusive, and as many may be applied as are considered to be relevant and contributory in a particular case. Proposed qualifiers include the following:

(a) *Associated with disorder or disease classified elsewhere, injury or surgical treatment* (e.g., diabetes mellitus, depressive disorders, hypothyroidism, multiple sclerosis, female genital mutilation, radical prostatectomy)
(b) *Associated with a medication or substance* (e.g., selective serotonin reuptake inhibitors, histamine-2 receptor antagonists, alcohol, opiates, amphetamines)
(c) *Associated with lack of knowledge* (e.g., about the individual's own body, sexual functioning, and sexual response)
(d) *Associated with psychological or behavioral factors* (e.g., negative attitudes toward sexual activity, adverse past sexual experiences, poor sleep hygiene, overwork)

(e) *Associated with relationship factors* (e.g., relationship conflict, lack of romantic attachment)
(f) *Associated with cultural factors* (e.g., culturally based inhibitions about the expression of sexual pleasure, the belief that loss of semen can lead to weakness, disease or death)

9.3 The Sexual Interview: The Important Questions

With psychiatric patients, the sexual interview has to follow a thorough mental health assessment, where the specialist has already got medical information focusing on identifying biological factors, comorbidities, and medical treatments that might be contributing to the sexual problem.

For each SD, there are definite questions that must be done to confirm the diagnosis, and those are related to the specific characteristics of the disorder. In short, we should assess the presence of certain symptoms, as described in the DSM-5 (criterion A), the ICD-11, and by the ICSM [2].

Other questions are considered by leading experts to be important and crucial for taking a sexual history [1, 4, 9, 10]. I would like to call them here "the top ten" in sexual interview, and the clinician should introduce them to the patient during the first or second sessions, wording as follows:

- *Can you describe the problem in your own words?*
  - When describing the difficulty, ask for clarification to know if it has appeared before or after other sexual disorders.
- *Has the problem always existed?*
  - If yes, check the psychosexual and relational factors and the awareness of bodily sensations and genital response.
  - If not, ask when it appeared and what, in his/her opinion, could have triggered the problem. Was the onset gradual or acute?
- *Are you sexually active? With or without a partner?*
  - If you are sexually active and on a regular basis, are you satisfied with your sexual activity? Are there differences in your sexual response?
  - Do you like sexual intercourse?
  - Is there sufficient and adequate sexual stimulation?
  - Do you masturbate? If yes, does the problem arise even when masturbating?
- *During sexual activity, do you experience negative thoughts or emotions?*
  - If yes, ask how much these thoughts or emotions impact on the possibility of remaining focused on the pleasurable and arousing sensations of sexual activity. Do you feel distracted, sexually substandard, unsafe, etc.? Do you feel sadness, emptiness, etc. at any point during the sexual activity?

  - Do you distract yourself with negative images related to body image, femininity/masculinity, performance, or others?
- *Is the problem limited to your partner and/or a specific context/situation?*
  - If yes, check the relational and contextual factors.
  - If not, and the problem is generalized, check for individual psychosexual and biological factors.
- *Does your partner have sexual problems?*
  - E.g., low sexual desire, arousal (erection, lubrication) or orgasmic disorders, pain during sexual intercourse? Be aware that the patient may be the "carrier" of the partner's sexual dysfunction.
- *What does the problem mean to you? Does it make you uncomfortable?*
  - Assess the degree of distress. Does it lead to frustration, guilt, shame, or other negative feelings? Examine performance anxiety.
- *What does the problem mean for your partner and for the relationship?*
  - Assess the degree of distress. How much the problem is affecting the relationship?
- *What is "normal" for you in sexuality? What do you expect should happen in a standard sexual encounter?*
  - Assess the presence of rigid sexual scripts, distorted cognitive schemas or dysfunctional thoughts, wrong beliefs, and sexual myths.
- *Is there anything else in your sex life that you think I should know in order to better assess your problem?*
  - The patient would like to add information about his/her previous experiences, his orientation or sexual identity, his/her sexual preferences, or anything else that may not have emerged during the interview.

At the end, collecting these data, we will be able to classify the SD according to the following categories:

- *Lifelong* (present from the beginning of sexual activity) or *acquired* at some point in the sex life (after a period of normal functioning)
- *Generalized* (present in all contexts, with each partner, etc.) or *situational* (only in certain contexts, partners, etc.)
- *Mild*, *moderate*, or *severe*, depending on the severity level of the symptoms

Each of these questions can potentially open the door to further information and inquiry. The main goal of a sexual interview is to define the problem in as much detail as possible, considering the partner's description, if possible. Furthermore, it allows to get some inputs, we would like to deepen more, in order to assess the contributing factors. In general, when there is marked situational variation in the presentation of the problem (e.g., present in some situations but not in others), psychological factors are implicated. Also, if the patient reports sporadic satisfactory

sexual function (even if very rare), then this is suggestive or indicative of psychological factors in the problem. If the complaint is lifelong, ask about masturbation and stressful events (if any) and enquire further about psychosocial factors or influences. If not, then ask when and under what conditions the sexual problem manifested and what might have caused or triggered it, such as unpleasant experiences, sexual intercourse with a new partner, a demanding or intimidating sexual partner, or non-sexual stresses. Question about sexual activity and satisfaction before the onset of the problem. Explore, with empathy and cultural sensitivity, about negative traumatic or humiliating sexual experiences. Assess cultural background and values in relation to sexuality issues. If it is not clear during the first phase of assessment, we should ask the patient *why he/she is seeking for help or treatment right now*. This is a very important answer as it often indicates important triggering factors, above all when the problem is lasting for years.

It is very important to get the real opinion of the patient about possible explanation of the sexual symptom, and we clinicians should guide our patients to think about a few options, at least the following:

(a) The problem occurs despite the right partner, adequate sexual stimulation (in time and approach), and appropriate sexual context.
(b) The problem is a consequence of partner's sexual difficulty.
(c) The problem is a consequence of the quality of the relationship with the partner (the less is the satisfaction in the couple, the less is the sexual function).
(d) The problem is a consequence of the duration of the relationship with the partner (the longer is the relationship, the more the problem persists).
(e) The problem is a consequence of a severe relational discomfort (psychological, physical, sexual partner violence).
(f) The problem is strongly influenced by external factors (family context, lifestyle, presence of stressors, etc.).
(g) The problem is a consequence of a medical condition or intake of substances/drugs.
(h) The problem is due to fantasies or sexual preferences that I do not want/can act.

Not all sexual difficulties can be categorized as a real dysfunction (satisfying all the criteria for a diagnosis); nevertheless, it can cause significant distress for the person or couple experiencing it. In these cases, during the assessment, it is important to elucidate what happens during the sexual response. The sexual response cycle involves a series of emotional and physical changes that occur when a person becomes sexually aroused and participates in sexually stimulating activities, including sexual intercourse and masturbation. Retracing all the phases of the sexual response (desire, excitement, orgasm, resolution) together with the patient and the partner can be useful, identifying any points of interruption or lack of fluidity [10, 11]. For this purpose, it is convenient to investigate the events that occur at the *beginning* of any sexual

activity (thoughts, fantasies, memories, interest, contexts), *during* sexual activity (adequacy of stimulation, genital and extra-genital sensations, subjective excitement, pleasure), not forgetting those *after* sexual activity (relaxation, satisfaction, intimacy, negative feelings such as emptiness, sadness, guilt, or shame). It should also be kept in mind that some people cannot feel satisfied sexually, despite a good level of sexual functioning and regardless the specific sexual activity or quality of performance. Functioning and sexual satisfaction (meant as an emotional state that occurs with the achievement of individual desires in the sexual sphere, different from pleasure and orgasm) are therefore two different variables in the clinical evaluation, both able to affect the motivation to start a sexual activity (ibidem).

After all that done, if we convinced ourselves that the role of other factors, besides the biological ones, is crucial, it may be worthwhile to investigate the psychosocial and relational variables in more detail.

Psychosocial issues. Ask about/assess:

- Daily mood and fatigue
- Body image concerns, especially genital image
- Sense of privacy
- Awareness about sexual rights
- Personality characteristics, self-esteem, self-efficacy, sexual self-confidence, extroversion, perfectionism, etc.
- Previous relationships with men or women
- Social skills, such as flirting or social networking
- Life-stressing factors, such as financial or work or job stresses

Relationship and partner issues. Ask about/assess:

- Relationship satisfaction, love, intimacy, trust, power dynamics, etc.
- Communication skills and whether the patient feels free to communicate the preferred sexual stimulation with partner
- Attraction between partners
- Physical intimacy
- Differences in partners' sexual preferences and potential
- How the couple copes with the problem. Pressure (imposed by patient or by the partner) can exacerbate symptoms
- Partner's attitude and reaction toward the sexual problem
- Each partner's goals and expectations

9.4 Predisposing, Precipitating, Maintaining, and Contextual Factors

Sexual function is typically influenced by a variety of *predisposing, precipitating, maintaining*, and *contextual* factors [11, 12]. Each of these factors contributes to determining the ability to preserve an active and satisfying sex life or the development and maintenance of sexual dysfunctions, both in the individual and in the

couple. The vulnerability of an individual to the onset of sexual dysfunction is determined by the relationship between risk factors and protective factors, as well as by his personal *resilience* (psychological attribute that describes the personal ability to deal with significant adversities). In general, the vulnerability to sexual dysfunctions is greater when there are more risk factors, lasting for longer periods, accompanied by huge forcing, compared to a single negative or traumatic episode. When stressors are greater than protective factors, even resilient individuals can be overwhelmed and develop sexual problems.

The *predisposing factors* are those conditions that precede the onset of the disorder and that make the individual more vulnerable to its trigger. These factors can be more biological in nature, such as a medical condition, or psychological, such as negative or traumatic life experiences. Their presence can diminish the ability to manage stressful events in adult life. The predisposing factors are rarely alone the cause of a sexual dysfunction, but they contribute to constitute a greater vulnerability of the subject (see Table 9.1).

The *precipitating factors* are events and conditions that occur at a certain point in the life of the subject and that can cause sexual difficulties, by themselves or in interaction with the predisposing factors. They include those more immediate factors that can bring a person from an adequate response to an altered one. They are able to trigger sexual dysfunctions or resolve when the "precipitating" situation should end or improve. The course depends on the individual's ability to deal with the problematic event (see Table 9.2).

The *maintenance factors*, instead, are not connected to the onset of the disorder but to the duration or to a greater or lesser ability of the subject or of the couple to overcome the sexual difficulty. They can prolong and exacerbate problems, regardless of the original predisposing conditions or precipitating factors, and are

Table 9.1 Predisposing factors

A.	*Constitutional factors*
	– Anatomical abnormalities (e.g., congenital disorders of sexual development)
	– Hormonal abnormalities
	– Temperament (e.g., shyness, impulsiveness, inhibition/excitability)
	– Physical recovery capacity (lack/low)
	– Personality traits (e.g., obsessive-compulsive, histrionic, borderline, etc.)
B.	*Developmental factors*
	– Problematic attachment and/or negative experiences with parents/caregivers
	– Episodes of physical, psychological, and/or moral violence
	– Surgical interventions/medical conditions
	– Traumatic events and/or trauma processing
	– First sexual experiences
	– Sexual abuse
	– Messages, expectations, and cultural/religious norms

Table 9.2 Precipitating factors

– Use of the condom or other contraceptive
– Stressful contextual situation in the specific sexual episode
– Discrepancy in the sexual repertoire with the partner
– Stressful life events such as divorce, separation, partner loss, infidelity, undesirable effects due to menopause
– Infertility or post-partum experiences
– Humiliating experiences in sexual encounters
– Depression/anxiety
– Relational conflicts
– Substance abuse
– Medical conditions, such as cancer, CVD, diabetes, etc.
– Partner's sexual problem

Table 9.3 Maintaining factors

– Current interpersonal conflicts
– Emotional, work, or personal stress
– Acute/chronic diseases or health problems
– Drugs or substance abuse
– Loss of sexual self-esteem, performance anxiety
– Problems related to body image
– Psychiatric problems
– Inadequate stimulation or foreplay
– Incorrect information on sexuality
– Poor communication between partners
– Fear of intimacy

Table 9.4 Contextual factors

– Fatigue in caring for an elderly parent, children, or sick partner
– Stress and daily challenges related to economic problems, unemployment, legal issues
– Problems related to the context: lack of privacy, time, shifts of work with the partner
– Repeated and unsuccessful attempts at conception, medically assisted procreation procedures

responsible for the conversion of episodic sexual failures into chronic dysfunctions (see Table 9.3).

Contextual factors tend to be temporary and situational and may interfere with sexual activity or maintain a dysfunctional situation. These are often aspects related to daily life, lifestyle, or problems that have led to a chronic change in personal or couple balance (see Table 9.4).

In essence, the assessment of a sexual problem should include an investigation of these factors, which will be useful to clarify the reasons for the current sexual functioning of the patient and the couple. The clinical interview, and/or the administration of questionnaires and scales, will be aimed at providing a temporal path of the patient's difficulties, starting from sexual development up to the current situation, with particular attention to the different life stages (Fig. 9.1).

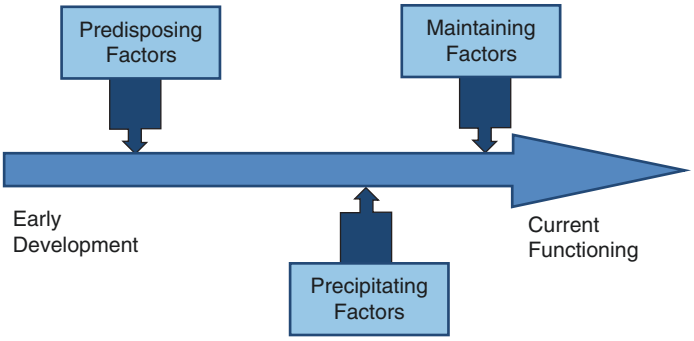

Fig. 9.1 Etiological timeline of sexual dysfunction

9.5 Therapeutic Alliance and Attitude During the Sexual Interview

Extensive research has consistently found a significant relationship between therapeutic alliance with therapy process and outcome [13–17]. Alliance has been found to be one of the most robust predictors of positive psychotherapy outcome regardless of the type of therapy utilized or whether assessed by therapist, client, or independent observer. The perceived psychotherapist's empathy, genuineness, acceptance, and competence are all associated with therapeutic alliance in the first stage of the treatment.

A well-conducted sexual interviewing and assessment can be seen already as a "therapeutic process" itself, which incorporates several specific therapist activities and strategies that have demonstrated promise in fostering positive working alliances. Specifically, in this very early step of treatment, clinicians are committed to:

- Developing and maintaining empathic connections with clients
- Working collaboratively with clients to define individualized objectives (e.g., "What's most important to you right now?" "At the end of therapy what would you most like to be different or have changed?" "How will you know at the end of our work together if treatment has been effective?").
- Sharing and exploring assessment results with clients, expanding the focus ("We've covered a lot of ground today and I've asked a lot of questions, but is there something that we haven't touched on yet that you think is vitally important to knowing you as a person?").

The therapist's ability to form a relationship with the patient during this stage may enhance his/her perception of being understood and aid in feeling more connected to the treatment process. When the ground is a psychiatric condition, and we want to alleviate a sexual distress, it could be very important to explore the *core relational theme*, meaning by that a statement of the patient's wish, an expected, imagined, or actual response from another, and a subsequent response from the self, which includes both the actions/behaviors and the feelings/affect associated with

this response. A common knowledge about these themes allows a better therapeutic focus on collaboration and alliance building.

Keeping in mind that approximately 40–50% of patients terminate therapy prematurely and that the effects of patient and therapist-rated alliance developed during an assessment persist across the course of treatment, the readers can follow why the initial sessions (up to 3) is an important area for clinicians to consider. The application of techniques that convey trust, appreciation, warmth, and understanding will likely increase opportunities to improve alliance levels in an initial session.

It is "never too early" in approaching the patient in the right way. Adopting a collaborative stance toward him/her, such as by exploring the client's perspective of their disorder in an interactive rather than one-sided manner, fosters more involved, depth-oriented interviews and develops early alliances. Therapist's techniques and attributes found to contribute positively to the alliance are summarized in Table 9.5 [13].

It may be necessary for a psychiatric patient to have a positive opinion of the therapist before he/she has enough influence to facilitate therapeutic change. If a patient believes the treatment relationship is a collaborative effort between him/herself and the therapist, he/she may be more likely to invest more in the treatment process and in turn experience greater therapeutic gains.

Which are, instead, therapist's techniques and attributes found to contribute negatively to the alliance? A summary of them is listed in Table 9.6 [13]. Of course, when the clinician does not pay attention to the patient's experience, intervenes in a dogmatic and rigid way, rejects the patient's expression of negative feelings, and does something the patient does not want or need, or his/her focus is off, he/she aggravate alliance ruptures.

Table 9.5 Interventions and attitude improving early therapeutic relationships

Techniques positively related to alliance	Attributes positively related to alliance
– Clarifying sources of distress	– Alert
– Maintaining an active focus on treatment related topics	– Confident
– Providing the patient with new understanding and insight	– Experienced
– Offering psychoeducation on symptoms	– Competent
– Fostering a collaborative treatment process	– Flexible
– Speaking with emotional and cognitive content	– Honest
– Using clear, concrete, experience-near language	– Respectful
– Utilizing open-ended and reflective queries	– Trustworthy
– Exploring in-session process and affect in a non-defensive and non-judgmental manner	– Open – Empathic
– Attending to the patient's unique experience	– Warm
– Facilitating client affect and experience	– Relaxed
– Fostering patient motivation for change	– Understanding
– Active-engaged involvement during the session	– Accepting
– Focusing on the here and now of therapy relationship	– Collaborative
– Providing ongoing feedback to patient	– Helpful

Adapted from: Hilsenroth MJ, Cromer TD, Ackerman S. How to Make Practical Use of Therapeutic Alliance Research in Your Clinical Work. Psychodynamic Psychotherapy Research: Evidence-Based Practice and Practice-Based Evidence 2012; 11:361–380.

Table 9.6 Precipitants to rupture in the alliance

Techniques negatively related to alliance	Attributes negatively related to alliance
– Managing the treatment in inflexible manner	– Rigid
– Over structuring the therapy	– Tense
– Failure to structure the therapy	– Defensive
– Inappropriate self-disclosure	– Self-focused
– Inappropriate use of silence	– Exploitive
– Unyielding transference interpretations	– Distant/detached
– Belittling or hostile communication	– Cold
– Superficial interventions	– Distracted
– Unsupportive confrontation	– Uncertain
– Giving unwanted advice	– Critical
– Missing importance of issues	– Aloof
– Focusing on something the patient does not want or need	– Indifferent

Adapted from: Hilsenroth MJ, Cromer TD, Ackerman S. How to Make Practical Use of Therapeutic Alliance Research in Your Clinical Work. Psychodynamic Psychotherapy Research: Evidence-Based Practice and Practice-Based Evidence 2012; 11:361–380.

9.5.1 Barriers to Discuss Sexual Issues

When talking about sexual interview and assessment, clinicians can meet several barriers to discuss these issues with their patients. Why do healthcare professionals not ask? Sexologists can be scared about the psychiatric condition while psychiatrists about sex. Some reasons could be as follows:

– Someone else will do it.
– Patients never ask about it, so they must not care.
– I don't know how to help or have time.
– I disagree with their lifestyle.
– They should be already happy to manage their psychosocial issues.
– They are too old, sick, young, etc.
– I will offend them by asking.
– I am embarrassed.
– I feel overwhelmed with more urgent healthcare issues.
– I lack specific training in sexual medicine.

That is why, when a psychiatric patient asks for sexological help, the ideal treatment team could be a psychiatrist and a clinical sexologist, and if needed involving other professionals, as urologists, gynecologists, endocrinologists, and physiotherapists. Training and supervision for all of us clinicians should focus on increasing basic/advanced therapeutic qualities, depending on our role in the treatment. That is why modern approaches to training in sexual medicine and sexology, carried out by the most important national and international scientific societies, are in fact educating HCPs capable of conducting a good sexual assessment and treatment, regardless of their specialty of origin. The innovative concept of these courses is to train

professionals from different specialties (and possibly from different cultural background) with the same interest in the field of sexual health and to give a common ground of knowledge, skills, and professionalism within the frame of the biopsychosocial approach to SD. In these contexts, multidisciplinary networking is promoted, but also for the single HCP the competence to see the patient through diverse perspectives when no team is available, which is the case of many countries and clinical environments. The goal of this book goes on the same line, being a useful resource of awareness and inspiration for all the psychiatrists willing to improve their expertise in sexual medicine, but also for the HCPs who need some knowledge about mental health conditions.

9.5.2 The "Good-Enough" Interview

In a "good-enough" interviewing, the clinician interacts in a respectful and nonjudgmental way. This is particularly true when the client is a psychiatric patient. We have to validate information and detect possible issues of secondary gain; provide client with preliminary information and, where relevant, feedback; perform or order from relevant specialist, significant psychometric, and other tests; progressively interpret and apply information to adapt assessment approach; and complete assessment in timely manner appropriate to client's needs.

Interrelationships of presenting signs, symptoms, objective tests, and other relevant features of the client's history and current circumstances will be considered when we will share the results of the assessment process with the patient/couple. Findings have to be interpreted with respect to gender, age, and physical and psychosocial parameters of the client; compared with current knowledge, expectations, and practice for the presenting condition and include or exclude alternative diagnosis; compared with client's expressed goals and aspirations and with cultural and statistical norms. Prioritize client's realistic needs and expectations, acknowledge and address differences between partners, and understand and incorporate into intervention planning the client's cognitive capacities for recognizing/accepting realistic goals, his/her physical capacities for meeting these goals, and cultural, social, religious, and legal issues that may impact on meeting aspirations and targets are essential clinician's tasks.

Working in partnership with the client means also re-evaluate, if required, our hypothesis, recognize and predict likely intervention effects, and—very important—identify areas that are outside our skills and expertise and refer the client appropriately.

9.6 Key Messages

- A detailed sexual history is the cornerstone for all sexual problem assessments and sexual dysfunction diagnoses. It should include sexual identity, sexual activity and function, overall health and comorbidities, partner relationship

and interpersonal factors, and the role of cultural and personal expectations and attitudes.

- Clinicians should differentiate sexual problems through a multifactorial assessment where biological, cognitive, emotional and behavioral, contextual, and interpersonal contributing factors and their ongoing interacting relations play a role in the individual's current sexual functioning and satisfaction.
- The ICD-11 classification seems better suited for the diagnosis of SD on populations with psychiatric comorbidity, where the mental syndrome could be the main and primary focus of attention, but the sexual disorder is evaluated (and treated) as well, when it is a source of distress for the patient.
- With psychiatric patients, the sexual interview has to follow a thorough mental health assessment, where the specialist has already got medical information focusing on identifying biological factors, comorbidities, and medical treatments that might be contributing to the sexual problem.
- Ten questions are considered by leading experts to be important and crucial for taking a sexual history; each of these questions can potentially open the door to some inputs we should deepen more, in order to assess the contributing factors (predisposing, precipitating, maintaining, and contextual).
- Therapeutic alliance has been found to be one of the most robust predictors of positive psychotherapy outcome regardless of the type of therapy utilized. The perceived psychotherapist's empathy, genuineness, acceptance, and competence are all associated with therapeutic alliance in the first stage of the treatment.
- Clinicians can meet several barriers to discuss sexual issues with their patients. Specific training, supervision, networking with specialists from different disciplines, staying update with the prominent publications on evidence-based medicine, and belonging to scientific societies in the field are the best strategies to overcome these barriers and be of help for psychiatric patients.

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Female Sexual Dysfunctions

10

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10.1 Introduction

Female sexual health and female sexual dysfunctions have specific characteristics, which have to be taken into account when it comes to counseling and therapy:

- Sexual dysfunctions are intimately linked to the life phase of the woman. Adolescence, pregnancy, postpartum, and peri- and postmenopause have specific somatic and psychosocial challenges and demands regarding adaptation to these changes.
- Sexual dysfunctions of women are typically not distinct entities affecting only one part of the sexual response cycle, but rather there is a considerable degree of overlap and interrelation, which contributes to vicious circles and feedback effects intensifying the symptoms.
- Sexual function in women is highly context sensitive and thus vulnerable to relationship and sociocultural inhibiting factors.
- Sexual health of women is highly vulnerable to psychiatric disorders such as affective disorders like depression and anxiety. Women are more affected by these disorders compared to men.

These characteristics have implications for diagnosis and therapy of the different dysfunctions described below [1].

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10.2 Female Sexual Interest/Arousal Disorder

10.2.1 Definitions and Epidemiology

What is sexual desire and arousal—and what our patients perceive as sexual desire and arousal—often requires clarification. For many years, scientists described sexual desire as an innate urge that *triggers* sexual activity. This urge or drive was indicated by sexual thoughts and fantasies. This view, which is depicted in the previous DSM-IV definition of hypoactive sexual desire disorder, largely determined relevant clinical diagnosis and research. This view however was challenged when Rosemary Basson, a Canadian psychiatrist, presented data suggesting that sexual desire can be experienced at the beginning of the sexual response, but it can also be experienced *during* sexual activity *as the result* of *pleasurable* sexual *stimulation* [2]. This was termed "responsive desire," and today there is plenty of data showing that a considerable number of women from the general population agree to engage in sexual activity without necessarily feeling spontaneous desire [3, 4]. However, they may experience responsive desire *after* they start feeling pleasure/arousal from the available stimulation. A question that attracted research attention and is clinically relevant is the following: What is it that makes some women agree to engage in sexual activity when sexual desire is not the trigger? The role of *motivation* to engage in sexual activity has been emphasized. Data have shown that some women's motivation for sexual activity varies largely; it is often non-sexual in nature; it may be positive (to gain something) or negative (to avoid a negative experience) [5]. From the above, it is evident that our perception of sexual desire as a *state* experienced at the initial phase of the sexual response has shifted to a perception of desire as a *dynamic experience*, closely related to the appraisal of the available sexual stimuli, to the experience of sexual pleasure, and to one's motivation to engage in sexual activity [6]. In clinical practice, it is useful to think of desire as consisting of three components: drive, expectations/wishes, and motivation [7]. Drive refers to the biological component of sexual desire. Expectations/wishes refer to the cultural component of desire that is shaped by beliefs and values about sex. Motivation refers to the willingness to have sex and is shaped by psychological and relational factors.

Sexual arousal refers to a woman's experience of genital arousal: i.e., genital vasocongestion, lubrication, and tingling. A woman's feeling of genital and emotional arousal is self-reported and usually termed subjective sexual arousal [8]. It is not clear how much of one's perceived emotional arousal is explained by perceived genital arousal and vice versa, but these have been found to be positively correlated [9]. However, a woman's subjective sexual arousal does not always coincide with genital arousal as measured by objective measures, such as the vaginal photoplethesmography [8].

A broader view of desire, referring not only to sexual thoughts and fantasies but also to "interest in sexual activity," "receptivity to partner's attempts to initiate sexual activity," and *responsive sexual desire*, i.e., interest in response to sexual cues (internal or external), is reflected in the new criteria of the DSM-5 [10]. The DSM-5

definition not only does acknowledge the strong interplay between desire and arousal but actually moves a step further to merge the two disorders into one (see Table 10.1) [10].

Female sexual desire disorder is now merged with sexual arousal disorder in one new disorder named female sexual interest/arousal disorder (SIAD). However, the fourth International Consultation on Sexual Medicine (ICSM) decided that merging the two disorders is not based on sufficient evidence and that the available research evidence supports the separation of the two disorders [11]. In addition, although some women experience both desire and arousal problems, others experience one of the two (e.g., a woman that feels desire to have sex; but once she engages in sexual activity, her feeling of arousal is low). A similar view is adopted by the ICD-11 that defines hypoactive sexual desire as a separate condition to female sexual arousal dysfunction (12) [12]. Both the DSM-5 and the ICD-11 acknowledge the importance of the problem being present for several months and causing significant distress in order to receive a diagnosis of a disorder. When a woman's low sexual arousal or sexual desire does not cause distress, then it is called a sexual desire or arousal *problem* instead of a *disorder*. In addition, the disorder can be acquired or lifelong and generalized or situational (for a description, see Table 10.2).

Although the majority of data on epidemiology, risk factors, and treatments have until today considered desire problems as separate to arousal problems, this chapter will present them together, because in clinical practice their interplay must always

Table 10.1 Definitions of desire and arousal disorder according to DSM-5 and ICD-11

DSM-5
Female sexual interest arousal disorder (FSIAD)
Lack of or significantly decreased sexual interest or arousal is manifested by at least three of the following characteristics: (1) absent or decreased interest in sexual activity; (2) absent or decreased sexual or erotic thoughts or fantasies; (3) no or decreased initiation of sexual activity and typically unreceptive to a partner's attempts to initiate; (4) absent or decreased sexual excitement or pleasure during sexual activity in almost all or all sexual encounters; (5) absent or decreased sexual interest or arousal in response to any internal or external sexual or erotic cues or absent or decreased genital or non-genital sensations during sexual activity in almost all or all sexual encounters
ICD-11
Hypoactive sexual desire dysfunction
Characterized by absence or marked reduction in desire or motivation to engage in sexual activity as manifested by any of the following: (1) reduced or absent spontaneous desire (sexual thoughts or fantasies); (2) reduced or absent responsive desire to erotic cues and stimulation; or (3) inability to sustain desire or interest in sexual activity once initiated
Female sexual arousal dysfunction
Characterized by absence or marked reduction in response to sexual stimulation in women, as manifested by any of the following: (1) absence or marked reduction in genital response, including vulvovaginal lubrication, engorgement of the genitalia, and sensitivity of the genitalia; (2) absence or marked reduction in non-genital responses such as hardening of the nipples, flushing of the skin, increased heart rate, increased blood pressure, and increased respiration rate; (3) absence or marked reduction in feelings of sexual arousal (sexual excitement and sexual pleasure) from any type of sexual stimulation

Table 10.2 Specifiers of sexual dysfunctions

Acquired	The problem was present after a period of relatively normal sexual function
vs	
Lifelong	The problem was present since first sexual encounters
Generalized	The problem is not limited to certain types of situations, stimulation, or partners
vs	
Situational	Occurs only with certain stimulation, situations, or partners

be considered during the assessment. Subsequently, treatment should be adjusted to the needs of the patient. Sometimes treatment would focus on desire, sometimes on arousal, and sometimes on both.

Out of all female sexual dysfunctions, sexual desire problems are the most frequently reported followed by arousal and orgasm problems. Prevalence rates of low sexual desire range from 17 to 35% in most studies but reach 40–50% in samples of women older than 65 years. Data on the prevalence of arousal disorders usually report the frequency of genital arousal disorder and lubrication problems, and in most studies, these range between 21 and 28% [13]. However, the prevalence rates of desire and arousal problems when they are combined with distress have much lower prevalence rates, especially in the older age groups [14].

10.2.2 Pathophysiology

Sexual motivation and arousal can best be understood as a dynamic state in which enhancing and inhibitory factors interact, and this interaction determines the degree of subjectively experienced desire and arousal [15].

On the level of the brain, the main inhibitory "messengers" are serotonin (5-HT), endocannabinoids, and opiates, whereas sexual excitation involves other neurochemicals such as oxytocin (OXT), norepinephrine, dopamine, and the melanocortin system.

Sex steroids (estrogens, progestogens, and androgens) exert organizational and activational effects and prime the brain to be selectively responsive to sexual incentives. With proper functioning, this creates a neurochemical state more likely to induce sexual excitation than sexual inhibition [16]. (See also Chap. 7 for more details on the neurophysiology of sexual response.)

Pathophysiological changes can be understood as either a decrease in excitatory impulses or an increase in inhibitory signaling.

Somatic inhibitory signals can come from:

- Disorders affecting the peripheral sensory system (urogenital diseases, operations, pain conditions, endocrine disorders, etc.)
- Neurologic and psychiatric diseases and drug effects on the brain

Somatic decrease of excitatory signaling is mainly due to endocrine changes:

- Menopause and postpartum
- Hormonal treatments

Psychosocial inhibitory signals come from:

- Sexual life experiences associated with anxiety, shame, and regret

Psychosocial decrease of excitatory signaling is mainly due to:

- Habituation and lack of external stimuli

10.2.3 Assessment

The diagnostic procedure should always include sexual, medical, and psychosocial history. The need for a focused clinical evaluation is highly recommended [17]. Clinical evaluation is important to assess changes of the vulvovaginal region including assessment of pelvic floor function.

Inspection of the vulva and vagina is important for signs of vulvovaginal atrophy. Other dystrophic changes may cause pain and discomfort and lead to secondary arousal and desire disorder. Laboratory examinations are rarely necessary. Laboratory assessment of ovarian and other hormones is rarely needed because serum values vary largely, and the main parameter of hormone deficiency is clinical symptoms like hot flashes, irritability, sleep disorders, and symptoms of genitourinary syndrome.

Sexual history A sexual history should help the physician define the problem of sexual desire and/or arousal. A woman complaining of low desire must always be assessed for arousal, and vice versa. Questions to identify signs of sexual urge and signs of responsive desire and identification of the woman's motivation to engage in sexual activity would all give a good description of a women's desire problem. Questions on the experience of subjective arousal and physical arousal would help describe the arousal problem. The duration of the problem, the available stimuli, and the context of sexual encounters, and whether it is generalized or situational and lifelong or acquired should always be part of the sexual history (for a description of indicative questions, see Table 10.3).

Medical history A medical history includes:

- Reproductive life phase (adolescence, postpartum, peri- and postmenopause)
- Menstrual disorders (heavy menstrual bleeding, dysmenorrhea, etc.)
- Gynecological and urological disorders (endometriosis, PMS, PMDD, polycystic ovary syndrome, recurrent cystitis, incontinence, prolapse)

Table 10.3 Indicated questions to assess a woman's sexual desire and arousal

The following questions should be used in order to
1. Identify *signs of sexual urge* – Do you sometimes feel an innate urge to initiate a sexual experience? – Do you have erotic dreams, sexual thoughts, or sexual fantasies? (however, many women who are satisfied with their sexual life do not have sexual fantasies, or they use them deliberately in order to increase arousal) – Do you sometimes feel like masturbating and pleasing yourself?
2. Identify signs *of responsive desire* – Do you ever feel sexual desire after you've received sexual stimulation? – Once sexual activity is initiated and you start receiving pleasurable sexual stimulation, do you feel like wanting to continue?
3. Describe the woman's *motivation for sex* – When you engage in sexual activity, what is your motivation for that? – What comes in your mind when your partner invites you for sexual activity?
4. Assess the relative *distress* caused by low desire – Why is low desire a problem for you? – Does your partner think this is a problem? – How have you and your partner been coping with the problem? – Do you feel *pressure* (imposed by self or by partner)?
5. Identify *variance* of sexual desire – "'Some women do not feel desire to have sex with their partner, but they do feel desire in other occasions, for example, when they are on their own or during self-stimulation or with another partner. Have you experienced something similar?" The first part of the question aims to neutralize masturbation and extramarital sexual activity in order to help a woman talk about such experiences. In many countries, women still don't feel comfortable to admit that they masturbate or that they have extramarital sexual activity
6. Identify signs of subjective *sexual arousal* – Once you engage in sexual activity, do you feel pleasure? Do you enjoy it (independently of whether you reach orgasm)? – If 10 is ultimate pleasure and 0 is a feeling of aversion, how would you rate your sexual experiences? – Out of 10 occasions of sexual activity, how many would you say are satisfying? – Some women don't feel sexual arousal from sexual activity with a partner but may feel arousal from self-stimulation or sexual activity with another sexual partner. Do you have a similar experience?
7. Identify signs of *physical arousal* – Once you have received sexual stimulation, do you feel wet/lubricated, throbbing, warmth, tingling, etc.? – Do you feel that other parts of your body are aroused? – Do you sometimes feel genital pain or irritation? If yes, which came first, pain or (lack of) desire/arousal? – Do you experience an orgasm, either during partnered sex or self-stimulation?
8. To define the duration of the problem, a brief description of previous periods of satisfying sexual desire/arousal or activity should also be described – When was the last time you remember experiencing sexual desire, arousal, or feeling satisfied from your sexual life?

Table 10.3 (continued)

9.	Identify the *sexual context or cues* – Is there emotional intimacy? – How erotic is the context? (e.g., love/emotional bonding cues, erotic or explicitly sexual cues, cues from physical closeness and appearance of the partner, romantic cues) – Is there adequate sense of privacy and available time?
10.	Identify the *sexual stimuli* – How useful are the sexual stimuli? – Describe types of stimulation—whole body, foreplay, etc. – Is the woman aware of her own stimulation preferences?

- Prescription drugs like SSRIs and hormonal contraceptives
- Malignant diseases (breast cancer, other cancers)

Concerning mental health, any psychiatric condition, past sexual abuse, problems with body image, and general mood should be assessed. History of medication use, substance abuse, and past and current mental health treatments should be monitored.

Psychosocial history A psychosocial history includes:

- Lifestyle factors, such as life stresses, childcare, and work/ job stress, and lifestyle patterns, especially sleep quality.
- Relationship factors, such as global satisfaction with relationship, leisure time together, sexual communication, e.g., do you feel comfortable to express your sexual needs, fears, and wishes? Also, issues of past or current infidelity or jealousy could be assessed.
- Partner factors, such as own sexual dysfunction, reactions to the woman's sexual problem, life concerns, health, and mood. When possible, the partner must be interviewed alone (See Chap. 9 for more details on sexual interview.).

10.2.4 Clinical Management

Education Education for the patient and partner may include:

- A discussion of the impact of age, duration of relationship, the role of sexual thoughts and stimuli, responsive desire, the role of motivation for sexual activity, and the impact of mood, health, and lifestyle factors.
- The way couples interact should be explained. It is important to demonstrate examples of positive or negative circularity. Eventually the therapy may enhance the couple's ability to intervene and shift negative circular interactions to positive ones.
- The formulation of realistic expectations. For example, helping the patient to understand what sexual stimuli are pleasurable and what sexual contexts are

desirable, are components of the patients' sexuality that can be influenced, but not necessarily altered or determined. Therefore, the patient or couple should be encouraged to adopt an approach which enhances interest in understanding and respecting one's own sexuality, rather than a mechanistic approach focusing on fixing something that is wrong.

Medical treatments Medical treatment strategies can be subdivided into treatments targeting the genitourinary system and treatments targeting brain mechanisms involved in desire and arousal [18].

(a) Genitourinary system: local estrogen treatment of vulvovaginal atrophy contributing to arousal problems and/or pain during intercourse which may contribute to diminished desire has proven to be highly effective. Local estrogens or the prohormone dehydroepiandrosterone (DHEA) exerts a trophic effect (increasing blood flow, stimulation of epithelial growth within the vulvovaginal region, and modulation of the threshold of tissue response to external and internal stimuli throughout a vast array of molecules, e.g., vasoactive intestinal peptide, neuropeptide Y, nitric oxide, cytokines, etc.) [18, 19].
(b) Central regulatory system:
    - Systemic hormonal treatments are indicated in those patients in whom lack of sexual hormones (mainly estrogens, androgens, less progesterone) contribute to low desire and arousal difficulties (see above). Systemic estrogen therapy has proven to be effective in peri- and postmenopausal women [20–23].
    - The selective tissue estrogenic activity modulator tibolone has proven to enhance arousal and desire in postmenopausal women [24].
    - Non-hormonal treatment can be subdivided into two groups of therapies:
        – Treatment improving the peripheral response, i.e., mainly enhancing sexual arousal: PDE-5 inhibitors (Sildenafil) have proven some efficacy in special groups of patients (diabetes, spinal cord injury, MS, etc.) with arousal problems. One study showed that women with sexual problems due to SSRI treatment had improved orgasms when treated with PDE5 inhibitors [25]. Other substances under investigation are L-arginine and phentolamine. Zestra is a locally acting massage oil that has shown some efficacy in a small trial on sexual arousal [26].
        – Treatment targeting the central response: This approach includes flibanserin, bupropion (in combination with trazodone especially in women with comorbid depression), buspirone, apomorphine, and bremelanotide. These drugs act on 5HT, dopamine, and noradrenergic pathways or on the melanocortin regulation in the hypothalamus (bremelanotide). Flibanserin has been investigated in pre- and postmenopausal women (26–28) [27–29]. Flibanserin and bremelanotide are approved by FDA for treatment of HSDD in premenopausal women, while the others are used off-label or indicated for the treatment of concomitant mental disorder.

Psychosexual treatment When low desire is the symptom of a psychiatric disorder, then the initial step is to ensure remission of the psychiatric condition [30]. If pharmacotherapy is required to achieve remission, then every effort should be made to choose sexually neutral drugs. Patients with psychotic symptoms may not be able to participate in psychosexual therapy, requiring instead a more supportive therapeutic approach [30]. When salient relationship problems and negative feelings toward the partner are evident, the couple may not benefit from psychosexual therapy unless these issues are managed before the introduction of psychosexual therapy.

The following must be clearly explained at the initial stages of therapy:

- Any sort of sexual activity, including sensate focus exercises, must be initiated only when each person feels wanting or neutral. In case one or both feel negative, sexual activity must not be initiated or continued. A feeling of freedom and safety to express level of desire must be encouraged.
- Sexual activity that is distressing and painful or causes negative experience should be stopped. The importance of distinguishing neutral from negative experiences and learning to protect oneself from negative experiences, but being open to neutral or positive ones, should be explained.

10.2.4.1 Psychosexual Treatment for Women with No Signs of Arousal Disorder but Complain of Low Sexual Desire

These women typically complain of rarely wanting to have sex, almost never initiating sexual activity, or avoiding sex and their partner's sexual invitations. However, once they have engaged in sexual activity, they find it satisfying and pleasurable. In such cases, these women seem to lack the urge and motivation, but once they engage in sexual activity, they usually experience responsive desire and pleasure. However, although their sexual activity is pleasurable, it doesn't reinforce future urge or desire for sexual activity. The following could be the target of intervention, depending on the contributing factors identified in the sexual history:

- Modification of lifestyle factors, such as fatigue (especially with childcare), daily stress, and negative mood, or inappropriate sexual circumstances (e.g., lack of time and privacy).
- Coping with sexual desire discrepancy between the partners. The partner desires sex more frequently and often complains of not having it as often as he would like to. The woman, on the other hand, would be satisfied with a lower frequency and avoids his invitations (often feeling inadequate). The more he reaches out for it, the more she avoids it. This usually causes a negative feedback loop with significant distress for both.
- Understanding the woman's sexual motivation, identifying negative motivation, and enhancing positive motivation. This should be encouraged to be done with a willingness to increase understanding of her own sexuality and motivation, instead of trying to fix it and pressure herself to want sex. Interpersonal issues, such as intimacy and satisfaction in the relationship, may influence motivation.

- Modifying the daily routine when the couple has gradually habituated to sexual abstinence could be the focus of treatment, most likely in couples with long relationship duration. Lack of sexual context and sexual cues could be the focus of treatment.

10.2.4.2 Psychosexual Treatment for Women with Low Sexual Desire and Diminished Sexual Arousal

In this case, women typically report that they are unwilling to participate in sexual encounters and experience difficulty becoming aroused once they have engaged in sexual activity. They may report dryness or even pain. In such cases, the health provider needs to try to understand whether desire is low because sexual encounters aren't pleasurable or sexual encounters aren't pleasurable because of lack of sexual desire and positive sexual motivation. In clinical practice, we often work simultaneously on both issues. Aside from working on the issues relative to desire described in the previous section, treatment should also focus on arousal. The following could be the target of interventions:

- Increase acceptable and pleasurable sexual stimuli. Sensate focus could be helpful, as non-demanding sexual activity may alleviate performance anxiety.
- Educate the woman to direct her focus of attention on her sensations and available stimuli.
- Train the woman to be aware of her automatic thoughts and concerns during sexual activity, without responding to them. The content of her thoughts could be discussed during consultations. In case her thoughts are especially persistent and distressing, the therapist may choose to halt sensate focus and work on the content of her thoughts.
- Train the partner to focus on his own pleasure and effectively cope with his negative emotions and thoughts. The partner often feels inadequate or unwanted, which in turn causes distress to him and often poses pressure to the partner. Eliminating partner pressure and communication skills of the couple could be the target of interventions.

10.2.4.3 Psychosexual Treatment for Women with Satisfying Sexual Desire and Diminished Sexual Arousal

These are women who want to have sex but report distressing non-arousing sexual experiences. In such cases, the abovementioned issues relative to arousal could be the focus of psychosexual treatment.

10.2.4.4 Psychosexual Therapeutic Tools for Female Sexual Arousal/Interest Disorder (FSAID)

Today, sex therapy is a specialized form of psychotherapy that draws upon an array of technical interventions known to effectively treat male and female sexual dysfunctions. Current sex therapy comprises a synthesis of interventions that the clinician chooses in order to treat *the needs of the patient/couple*. For example, an arousal disorder that is explained by lack of adequate stimuli would be treated

differently to an arousal disorder that is explained by couple conflicts or lack of estrogens. Today's psychosexual therapy comprises cognitive-behavioral interventions which often incorporate mindfulness, systems/couple interventions, and sometimes psychodynamic interventions. These are often combined with medical therapy, thus providing care through a biopsychosocial perspective. For the treatment of low desire, there is level 2 evidence for sensate focus, for cognitive behavioral therapy (CBT), and for CBT combined with mindfulness. For low arousal, there is level 2 evidence for combination of mindfulness and CBT [18]. With the multiple psychogenic factors that may underlie sexual dysfunctions, the need to consider the complex interplay of multiple factors is especially important in today's clinical sexology [18].

Case Report 1

Presenting Complaint

28-year-old woman in a 5-year relationship with a man 36 years old. She complains of absence of genital and subjective sexual arousal during partnered sexual activity, with considerable distress, since the beginning of her current relationship. When she receives sexual stimulation from her partner, she initially feels excited, but her arousal is abruptly diminished, and she stops in 7 out of 10 times. She masturbates a few times a year since she was 18, but she is not familiar. Sexual urge, sexual thoughts, and fantasies occur a few times per month, mostly when she is alone, but she usually doesn't act on them. She initiates sexual activity in 9/10 times, although at the beginning of the relationship it was her partner who initiated sexual encounters 10/10 times. Now, her partner avoids initiating sexual activity.

Initial Assessment of the Woman

Her sexual history shows that sexual arousal is situational and acquired, and there is also diminished responsive sexual desire. They have sexual intercourse almost one time a week; the partner always initiated this during the first 4 years of the relationship. She always responded positively to his invitation because she didn't want to let him down and make him angry. She always felt he was pushy and liked wild sex, while she wanted more time for intimacy to develop. Sexual intercourse is always unpleasant. During the last year, she feels very guilty for hindering their sexual life, and this is her motivation to initiate sexual activity. Automatic thoughts during sexual encounters are characterized by negative self-criticism about her arousability that causes feelings of inadequacy and guilt.

Her medical history reveals no chronic conditions, nor medication use, but she has a history of one abortion 9 years ago that caused her high guilt. Currently, there are signs of body image concerns but do not constitute a diagnosis for body image disorder. The menstrual cycle is normal, and there are no signs of thyroid disease. Mental health is good.

Psychosocial history reveals low stress and fatigue.

Relationship quality reveals that she is satisfied by her relationship in general and their relationship has several positive aspects, such as that she enjoys his company and she describes her partner as very caring and reliable. However, they have dysfunctional communication skills. It is very difficult for her to express her needs, fears, and wishes in both the non-sexual and sexual communication.

Also, the sexual context is problematic. They usually have sex late in the evening when he has come home from work. Sexual stimulation is inadequate for her, as there is too little foreplay.

Biological etiology is not suspected, so no lab tests are required.

Assessment of Partner

The partner feels distressed by the fact that she never enjoys their sexual interaction. He often felt angry because since the beginning of their relationship she was reserved and reluctant to express herself sexually. He is generally happy with the non-sexual aspects of the relationship.

Management

First step—patient/partner education. This could be provided by any physician with adequate comfort level to discuss sexual desire and arousal. Initially it would be important to discuss the negative impact of engaging in dissatisfying sexual activity and also an explanation of the ongoing negative feedback loop they have experienced. At the beginning of their relationship, he was spontaneous and enthusiastic for sex, while she was reserved and needed more time for their sexual encounters to be initiated. This discrepancy quickly made him feel rejected, which he expressed with frustration and pressure for sex. This contributed to her feelings of inadequacy and guilt, which she expressed with sexual avoidance. Once they started having sex, she was highly concerned about whether she would fulfill his sexual expectations. Thoughts of self-criticism distracted her away from sexual stimuli causing low arousal. This in turn enhanced his feelings of being unwanted and rejected. The more rejected he felt, the more guilty she would feel, and it would become more difficult to get aroused.

Second step—the couple would need to receive a combination of techniques from couple therapy and CBT. This could be provided by a specialist or by a physician with an adequate level of sex therapy techniques.

Couple therapy techniques would focus communication skills in order for the couple to start communicating needs, fears, and wishes. For example, the couple should feel free and safe to express desire or non-desire. In addition, the couple could learn to enhance differentiation. In other words they could learn to identify their own emotions and needs, respect them, and manage them, instead of focusing on managing their partner's emotions and needs by feeling responsible for them. In our case, both individuals had feelings of inadequacy. She felt inadequate to be sexually aroused, and he felt inadequate

to cause her sexual arousal. Each individual should learn to increase his/her own arousal by focusing on his/her own sensations. At the same time, the therapist could help her manage her feeling of guilt (when she feels she doesn't reach her partner's expectations) and his feeling of frustration (when he feels he can't cause her arousal).

The behavioral part of CBT would include ways for improving the sexual context, better time management, as well as sexual exercises (sensate focus) for experiencing pleasure through non-demand sexual activity. These sexual exercises could also be enhanced with some mindfulness techniques to increase attention focused on sexual stimulation. The cognitive part of CBT would focus on altering thoughts and beliefs that cause or maintain low arousal, e.g., "I am incapable of enjoying sex," but also thoughts and beliefs that maintain low sexual satisfaction such as "Denying my partner sex is a threat to my marriage" or "I can never enjoy sex anymore."

Because the woman in this case has body image concerns, the therapist must assess the impact of this not only in the initial assessment but also subsequently. If such concerns become more salient, therapy will need to focus on that. However, it must be kept in mind that any patient presenting with body image *disorder* must first receive treatment for this and not focus therapy on increasing sexual arousal. In our example this was not the case.

10.3 Genitopelvic Pain/Penetration Disorder

10.3.1 Definitions and Epidemiology

According to DSM-5, this disorder is characterized by at least one of the following: (1) difficulty with vaginal penetration during intercourse; (2) marked vulvovaginal or pelvic pain during vaginal intercourse or penetration attempts; (3) marked fear or anxiety about vulvovaginal or pelvic pain in anticipation of, during, or as a result of vaginal penetration; or (4) marked tensing or tightening of the pelvic floor muscles during attempted vaginal penetration.

According to the ICD-11 definition [12], sexual pain-penetration disorder is characterized by at least one of the following:

- Marked and persistent or recurrent:
  - Difficulties with penetration, due to involuntary tightening or tautness of the pelvic floor muscles during attempted penetration
  - Vulvovaginal or pelvic pain during penetration
  - Fear or anxiety about vulvovaginal or pelvic pain in anticipation of, during, or as a result of penetration
- The symptoms are recurrent during sexual interactions involving or potentially involving penetration, despite adequate sexual desire and stimulation, and are not attributable to a medical condition that adversely affects the pelvic area,

result in genital and/or penetrative pain or to a mental disorder, are not entirely attributable to insufficient vaginal lubrication or postmenopausal/age-related changes, and are associated with clinically significant distress.

ICD-11 defines dyspareunia as a pain condition that has an identified physical cause.

Genitopelvic pain/penetration disorders usually refer to pain occurring at a specific part of the vulva (localized) or the entire area of the vulva (generalized). Pain can be provoked (in response to pressure) or unprovoked (occurring at any time). In other cases, the most distinct characteristic is the fear of the pain, rather than the pain itself. The following types of genital pain have received most attention and have been described as follows: [11, 31–33]

- *Provoked vestibulodynia (PVD)*: the most common situations that evoke PVD are vaginal penetration during sexual activity, during gynecological examinations, and during the use of internal feminine hygiene products. Women with PVD may be pain-free for much of their day, only experiencing the pain during activities that involve vaginal pressure or penetration.
- *Generalized vulvodynia (GVD)*: women suffering from GVD typically report a fairly constant burning or itching pain over a large region of their external genitals. It can occur at any time of day during various activities and can also occur "out of the blue." The pain of GVD, however, can be exacerbated by contact to the vulva during sexual activity.
- *Vaginismus*: characterized usually by the presence of fear/avoidance as well as muscle tension so pronounced it prevents entry to the vagina of any object (penis, finger, tampon, gynecological examination).

Data on the prevalence of pain disorders are not consistent and vary with some studies showing 2% and others reaching 17% or even 22% [11].

10.3.2 Pathophysiology

Different pathophysiological pathways can be differentiated:

- Tissue damage leading to activations of nociceptors in the vulvovaginal region and the pelvis. This pathway relates to gynecological, dermatological, and systemic disorders.
- Chronic irritation of nervous pathways leading to neuropathic pain. This pathway relates to neurological disorders.
- Chronic pain due to peripheral pain mechanism over-activation and/or central nervous signal processing as known from other chronic pain disorders. This relates to the association of these pain conditions to affective disorders.
- Disorders of the pelvic floor and surrounding tissues. This is most prominent in patients suffering from vaginism with unvoluntary contractions of the smooth

muscles around the vaginal introitus thus making penetration impossible. This pathophysiological mechanism is also involved in other conditions mentioned above.

10.3.3 Assessment

Pain assessment Initially, the pain characteristics and how it developed need to be described. Many patients have been told for many years that their pain is not real, so meeting a clinician that trusts them and their symptoms can result in enormous relief. The location of the pain, the intensity (on a 0–10 scale), and the triggers are necessary information. Also, how the woman has dealt with this problem and mostly if she continues to have sexual intercourse despite pain is crucial information. How she has coped with the problem, including behavioral adjustments, medical treatments, and her partner's response, should also be explored.

- Was pain experienced since the beginning of sexual life or after a period of normal sexual activity (if it has always been the case, then keep in mind that this woman may have pain because of vaginismus and also that this woman has probably low sexual self-efficacy)?
- If the problem is acquired, what could have triggered it?
- Where is the pain located? (Provide options.) Is it at the entrance of the vagina, further inside, or deep inside?
- Do you feel pain before or after intercourse? Before intercourse may indicate a phobic reaction that may be causing the pain or may be the consequence of pain.
- Out of 10 times of sexual activity, how many times do you feel pain?
- When was the last time you had an intercourse attempt? Is your partnered sexual activity always followed by intercourse attempts?
- How have you and your partner coped with this problem?
- How does pain interfere with your daily activities?
- How does pain interfere with your relationship?
- Some women like to masturbate. Do you masturbate, and what is your experience? Do you feel pain during masturbation? Is there pain on the external genitals or when you insert your finger or a vibrator?

Physical/medical assessment The medical history has to be comprehensive including somatic and mental health disorders and respective treatments including dermatological, urogynecological, musculoskeletal, and affective disorders. All these can contribute to the pathogenesis of chronic pain (see above).

Physical examination includes the following steps:

- Inspection of the vulva and vagina. Look for signs of inflammation or atrophy.
- Q-tip test. The physician touches with a Q-tip along the vestibulum in a clockwise manner. The patient reports whether she feels touch or pain or burning sensation. Typically, in patients with provoked vestibulodynia, the

patient will report pain either in all regions of the vestibulum or typically at 3 and 9 o'clock.
- Special examinations include bimanual palpation and ultrasound. This is important in women reporting deep pain (pain in the pelvis) during intercourse [33, 34].

Psychological assessment This part of the assessment aims to collect information about psychological, sexual, and partner-related factors that may be contributing to the pain (most probably they do not cause the pain but exacerbate it).

Questions that assess possible psychological contributing factors should include:

- What do you believe causes or influences your pain?
- What emotions has this pain experience caused?
- How has the problem influenced the way you think about yourself and your life?
- What are your biggest concerns related to this pain experience?
- Have you talked to anybody about this?
- Would you talk to a new partner about this problem, or would you prefer to avoid initiating the relationship (in case the patient is single)?
- How do you usually cope with problems? Are your coping strategies problem focused or emotion focused?
- What personal resources (personality characteristics or social support) have helped you cope with this problem?
- How is your general mood? What other life concerns or stressors do you have at the moment?
- How do you feel with your body and genitals?
- What image or thought comes into your mind when you think of vaginal penetration?
- Have you had any mental health concerns in the past?

Questions to assess possible sexual contributing factors:

- How was your sexual life before the initiation of the problem? In case the problem was initiated at first sexual intercourse, the clinician may assess the patient's beliefs and attitudes toward sex before the first attempt.
- Has this problem stopped you from flirting (in case the patient is single)?
- Do you have foreplay? Do you enjoy it?
- If you knew you would not attempt intercourse, would you enjoy non-intercourse sexual activity with your partner?
- Do you feel sexual desire or pleasure from non-intercourse sexual activity?
- Do you feel pressure to have intercourse? Either self-imposed or imposed by partner?
- Do you and your partner have sexual activity? How often? What does this include?
- What thoughts come into your mind when you are about to initiate sex, during sex, and after sex?
- Do you masturbate? How would you describe the experience?

Questions to assess possible partner and relationship-related contributing factors:

- How has your partner coped with this problem?
- What kind of information does he have? What does he think contributes to the pain?
- Does he have a sexual problem, such as difficulty with ejaculation?
- How does he react when intercourse is abruptly stopped?
- How has this problem influenced your relationship?
- Do you talk about this problem? How satisfied are you with your partner communication about this problem?
- Are you satisfied with your relationship?

10.3.4 Clinical Management

Medical management Medical treatment includes the therapy of underlying disorders such as infections, dermatological diseases, endometriosis, ovarian cysts, vulvovaginal atrophy, or dystrophia (see above).

The second medical strategy is based on chronic pain medication like gabapentin in combination with amitriptyline or serotonin and noradrenaline reuptake inhibitors (SNRIs), which is usually off-label.

Part of medical therapy should be routine pelvic floor physiotherapy. Due to the chronic pain condition, the perception of signals from the vulvovaginal region is amplified and accompanied by catastrophizing cognitive patterns. At the same time, pelvic floor muscles contract and intensify the pain perception.

Pelvic floor physiotherapists can help women to become aware of the pelvic floor muscles and help them to learn to differentiate sensations coming from the vulovaginal region by guided self-controlled touch, visual feedback, and breathing techniques. This setting allows patients to communicate about their experience and learn how to modify their cognitions on one hand and how to relax and contract their pelvic floor in accordance to their wish (see also below).

In some cases of vestibulodynia, a surgical excision of the superficial tissue of the vestibulum is performed, and vaginal mucosa is sutured to the perineal skin thus covering the introitus of the vagina by vaginal epithelium instead of the vestibular surface epithelium. The operation is called vestibulectomy. Surgical treatment is considered the last resort option due to the controversial success rates reported and the aggravation of symptoms in case of non-success. It should only be performed in the context of a multidisciplinary team approach and should be done by an experienced surgeon.

Until now there is no consensus about the best treatment for vestibulodynia and vulvodynia.

There is general agreement that the therapeutic algorithm should be based on a multidisciplinary approach starting with low-risk procedures (counselling, physiotherapy) to reversible medication (analgetics, anticonvulsants, antidepressants) to more invasive procedures [32–34].

Psychological management The aim is for the woman herself to achieve pain control, reduce her catastrophic fear of pain, and reestablish satisfying sexual functioning. Pain reduction during sexual situations would be the ultimate goal.

Cognitive behavioral therapy would help the woman identify her thoughts, emotions, and behaviors, as well as their interplay, that influence the pain experience [35]. This is similar to the management of any type of chronic pain.

Mindfulness has also been integrated with cognitive therapy, where the focus is on tuning in rather than tuning out or distracting from the pain experience. Interventions that aim to facilitate pleasurable sexual activity for the couple may also be useful. For example, non-penetrative sexual activity may be encouraged, also the expression of sexual desire and physical intimacy during the day, or expressing one's preferences or dislikes in a setting of freedom and safety. Problems with body image and genital image are often part of the treatment process. It is a challenge for a woman with genital pain to maintain a positive self-image of her genitalia, which is important for her sexual satisfaction. Cognitive behavioral therapy could intervene on this aspect as well [36].

In cases of vaginismus, the treatment options would typically target the muscle spasm/contraction over and above the symptom of (feared) pain. The major focus of treatment tends to be vaginal dilation combined with progressive desensitization and a variety of relaxation techniques. Additional components may also be part of the treatment regimen, ranging from sex education to decreasing penetration fear and anxiety. The addition of sex education and sensate focus may also be beneficial [37–39].

Case Report 2

Presenting Complaint

A 21-year-old patient, a history student at the local university, comes for a consultation with the following complaint:

"I cannot have intercourse……It is too painful…….When he tries to enter me I could cry…… He is very empathic and stops…. It is so frustrating.

She starts crying.

Initial Assessment

The patient appears timid, vulnerable, and in acute distress.

This problem started since she had her first intercourse at the age of 17 years. It was unpleasant but not as painful as it is now. She kept on "having sex" without really enjoying it. She used the pill which she did not tolerate very well. Then she suffered from recurrent bladder infections which she treated with antibiotics. This treatment was followed by recurrent candidiasis infections which she had to treat with an antimycotic.

For about 2 years, the pain increased during intercourse attempts. This led to the disruption of a previous relationship. She felt humiliated and not like a real woman. Now she has a new boyfriend and is afraid to lose him also. There are no other complaints.

Sexual History

She grew up in a traditional southern German family. During puberty, she focused on her female peer group and was late in getting interested in boys.

She felt not attractive and had difficulty to contact boys. She received her sexual education at school and from youth journals.

She rarely masturbated. It did and does not provide her "real" pleasure.

First intercourse was at the age of 17. No orgasm. Pain. (see above)

Medical History

Apart from recurrent infections, no major diseases or operations.

She has tried a lot of different treatments for her sexual pain including local treatments, gabapentin in combination with amitriptyline as a local cream and cortisone locally and orally.

Psychosocial History

Childhood and adolescence without major life events.

She went through high school experiencing difficulty in developing career interests and a professional vision. She had to leave home and live in Austria to follow studies in media technique in Vienna as there were no comparable programs near home. She is still trying to find a profession which would please her.

Gynecological Examination

Apart from positive Q-tip test, normal gynecological examination. No signs of infection, etc.

Ultrasound normal

Diagnosis

Provoked vestibulodynia

Management

Psychoeducation

The patient was informed about the different pathways and factors which can lead to her pain experience. She was invited to bring her boyfriend to treatment. But she informed the provider that they had decided to stop the relationship to give her time to find out about herself.

Combined Therapy

Based on this understanding, the different therapeutic options were discussed, and after excluding those which have already been tried without success, it was agreed to work on two levels. Level 1 would be focusing on body perception and processing of body signals.

Level 2 would be physiotherapy of the pelvic floor as a complex organ in itself.

After consent by the patient, treatment was initiated with a combination of relaxation and imagination techniques including elements of mindfulness to help the patient rebuild an inner representation of the vulvovaginal region and the signals coming from there (imagine being touched—increase pressure until you feel pain, decrease pressure—let the pain go, imagine the sun shining and giving a warm feeling on your vulva- increase warm to heat- decrease etc.).

A physiotherapist worked with her exploring trigger points in the outer third of the vagina and the pelvic floor and helping her to become aware of the muscles and the tissue surrounding the vestibulum.

After 2 months of combined therapy, the patient could touch the vestibulum herself without pain She did not have a partner at that time.

10.4 Female Orgasmic Disorder

10.4.1 Definition and Epidemiology

Even among women without sexual dysfunctions, subjective experiences of orgasm vary considerably, and female orgasm has been a difficult concept to operationalize. In 2003, an International Consultation [40] agreed on the following definition of an orgasm:

> An orgasm in the human female is a *variable*, transient peak sensation of intense pleasure, creating an altered state of consciousness, *usually* accompanied by involuntary, rhythmic contractions of the pelvic striated circumvaginal musculature, often with concomitant uterine and anal contractions and myotonia that resolves the sexually-induced vasocongestion, *usually* with an induction of well-being and contentment.

According to DSM-5, an orgasmic disorder is manifested by either of the following symptoms and experiences on almost all or all (approximately 75–100%) occasions of sexual activity (in identified situational contexts or, if generalized, in all contexts): (1) marked delay in, marked infrequency of, or absence of orgasm or (2) markedly decreased intensity of orgasmic sensations. As with all other sexual disorders, the presence of significant distress is necessary for a diagnosis [4].

The International Consultation of Sexual Medicine defined female orgasmic disorder (FOD) as a marked delay in, marked frequency of, or absence of orgasm and/or (2) markedly decreased intensity of orgasmic sensation (grade B recommendation). Without the experience of distress, a dysfunction cannot be diagnosed. In addition, the ICSM proposed a definition for hypohedonic orgasm disorder (lifelong or acquired decreased or low level of sexual pleasure with orgasm, expert opinion) and for painful orgasm disorder (the occurrence of genital and/or pelvic pain during or shortly after orgasm, expert opinion) [11].

In the most recent prevalence studies with nationally representative samples, prevalence figures range from 3.5 to 35%. The highest prevalence figures are found in Southeast Asia (34%) and the lowest in Northern Europe (10%) [13].

10.4.2 Pathophysiology

Orgasm can be understood as a combination of a peripheral reflex which is associated with a specific brain activation [41]. The peripheral reflex involves sensory inputs coming from central stimuli (images, thoughts) and peripheral stimuli (touch, visual, auditory) which activate sympathetic and parasympathetic neurons travelling in the pudendal nerve and hypogastric plexus. These signals lead to neurovascular and neuromuscular reactions in the outer third of the vagina and the pelvic floor.

The observable preorgasmic changes are swelling and change of color of the labia due to vasodilation. During orgasm, paravaginal muscular tissue contracts with variable intensity and frequency [40]. The parallel processes in the brain are not completely understood. Specific areas in the prefrontal cortex seem to have a

decrease in their activity, while others are increased. Amygdala activation and deactivation seems to play an important role [41, 42]. The most important neurotransmitters involved are dopamine and oxytocin. (See Chap. 7 for more information on neurophysiology of sexual response.)

Orgasmic dysfunction can result from organ damage of those involved in stimulus perception or production (see arousal disorder), damage to the involved nervous structures (neurological diseases), central inhibitory processes and drugs (SSRIs, opiates, etc.), and hormonal changes mainly involved also in the physiology of arousal (see above). Psychological risk factors include the fear of losing control, performance anxiety, lack of confidence in the partner, and/or unresolved conflict in the relationship. These emotions have an inhibitory effect on the excitatory process and thus interrupt the individual dynamics reaching from arousal to orgasm [41].

10.4.3 Assessment

10.4.3.1 Sexual history

The following are indicative questions that can help define the type of problem, the relevant distress, and partner-related factors:

- Are orgasms absent and/or very delayed and/or markedly reduced in intensity?
- During partnered sexual activity, is the problem experienced with manual stimulation and/or with intercourse?
- Is the problem acquired, or has it been lifelong?
- Is it global or situational?
- Does the problem cause significant distress? When did this become a concern or problem?
- Do you masturbate? If yes, is the problem experienced during masturbation?
- Are there any concomitant problems (arousal, desire, sexual pain problems)?
- Concerning your orgasm experience, what would you expect to achieve? What would you think is a normal response?
- Is there adequate and acceptable stimulation? Also, is attention focused on stimulation?
  - When with partner
  - During masturbation
- Do you feel free to enjoy your sexual activity despite the lack of an orgasm?
- Is there fear of letting go control? What do you fear may happen that could be negative?
- How does your partner react to this problem? What is his level of bother from 0 to 10?
- Concerning your orgasm experience, what does your partner expect you to achieve?
- Does your partner have a sexual dysfunction, such as early ejaculation?
- How has this problem influenced your sexual activity?
- What thoughts come into your mind during sexual activity?
- What thoughts come into your mind after your sexual activity?

10.4.3.2 Psychosocial History

- Personality characteristics that could influence the woman's perception and coping with the problem could be assessed. Sexual submissiveness, non-assertiveness, and restrictive attitudes toward sexuality could be identified.
- Relationship factors, mostly focusing on the couple's sexual interplay. For example, does the man pressure the woman to obtain an orgasm, and does this increase her performance anxiety? Also, the couple's communication skills could be assessed.
- The partner must be interviewed alone when possible. His beliefs about female orgasm and his perception of his own role in this could be discussed. A sexual dysfunction that was initiated prior or after the partner problem is of importance.

10.4.3.3 Medical history

The medical history should include:

- Conditions leading to impairment of stimulus perception and transmission like vulvovaginal atrophy, incontinence, etc. (see arousal disorders).
- Neurological diseases leading to impaired nerve transmission or central signaling like multiple sclerosis, amyotrophic lateral sclerosis, spinal cord injury, etc.
- Psychiatric diseases and treatment leading to disturbance of central signaling like affective disorders and their treatment.

10.4.4 Clinical Management

Education and Psychosexual Interventions The ICSM clearly states that *education* is the cornerstone of all evidence-based psychological interventions for FOD. Women should be provided with accurate information about sexual anatomy and physiology, variations in sexual response, and common forms of stimulation used to reach orgasm. This process can be therapeutic in itself [18]. Beyond education, interventions can focus on the factors that explain the maintenance of the problem according to the sexual history. *When a woman can reach orgasm on her own, but is unable to experience an orgasm within partnered sex*, treatment may focus on various factors such as:

- *Increasing the effectiveness of the available stimulation*. Sensate focus, adequate clitoral stimulation during partnered sex, or engaging in intercourse using positions that maximize clitoral stimulation could be suggested.
- Altering the woman's negative emotions (e.g., anxiety, shame, or fear to let go) with cognitive behavioral therapy.
- Enhancing a sense of freedom and security within the couple interaction. Communication skills could be helpful in this case.
- Treatment of the partner's dysfunction.

When a woman reports that she has never obtained an orgasm, whether during partnered stimulation or masturbation, then it is most likely that the treatment

would have to focus on helping the woman to find ways to stimulate herself and obtain an orgasm during masturbation through directed masturbation (DM). Subsequently, this could be applied in partnered sexual activity. One evidence-based treatment for female orgasmic disorder showed that with DM there was an 80% efficacy to obtain orgasm during masturbation in lifelong anorgasmic women and 20–60% efficacy to obtain orgasm during partnered sexual activity [43]. (See Chap. 12 for more information on techniques used in sexual therapy.)

Medical treatments All treatments improving arousal should be considered (see above). In patients treated with antidepressant drugs, the treatment should be re-evaluated, and if possible a transition to drugs with less negative impact on arousal and orgasm like bupropion should be initiated (see above). (See Chap. 24 for more information on the impact of psychopharmacology on sexual response.)

In addition to those mentioned above, PDE-5 inhibitors, oxytocin, and dopaminergic drugs have been investigated. There are preliminary results indicating that in subgroups of patients with diabetes sildenafil could enhance the response. However, no larger-scale studies showing beneficial effects have been performed.

Case Report 3

Presenting Complaint

A 31-year-old woman (she is a musician) is in a 1-year relationship with a 36-year-old man (he is a young and very successful business man). She complains of absence of orgasm during partnered sexual activity, with significant distress. She recalls an absence of orgasm during partnered sex in all her previous relationships, but distress is evident only in her current relationship. Sexual desire and arousal are satisfactory. She masturbates a few times a week since she was 16, and she can obtain an orgasm with clitoral stimulation. With partnered sexual activity, she doesn't have any clitoral stimulation, mainly because she feels uncomfortable and also because her partner's focus is on intercourse. She describes a high level of distress which is triggered mostly by her partner. Her distress is triggered by the fact that her partner has told her that all his previous partners had orgasms with intercourse.

Initial Assessment of the Woman

Her sexual history shows orgasm disorder is lifelong and situational with distress. They have sexual intercourse almost two times a week; the partner always places great importance on her achieving an orgasm. Her automatic thoughts during sexual encounters are characterized by negative self-criticism about her difficulty to orgasm. She feels arousal but is inhibited to express it vocally. She would like to have clitoral stimulation, but has never asked for it. She leaves her stimulation to her partner to decide.

Her medical history reveals no chronic conditions nor medication use. Her menstrual cycle is normal, and there are no signs of thyroid disease. Mental health is good.

Psychosocial history shows she is non-assertive and feels sexually inadequate.

She describes her relationship as satisfactory in all aspects, except their sexual life. Couple interaction is influenced by him being "controlling" and an achiever, while she is very jealous and fears losing the relationship.

Biological etiology is not suspected, so no lab tests are required.

Assessment of Partner

The partner feels distressed by the fact that he cannot make her orgasm. He feels frustrated and blames her for not trying enough. He never had a long-term relationship in the past, but he describes his sexual life as very active, with many women and experiences.

He is generally happy with the non-sexual aspects of the relationship.

Management

First step—patient/partner education about how women become aroused, a discussion about the fact that many women are not able to experience orgasm with vaginal intercourse and when they do it usually does not occur on all sexual encounters. The role of the clitoris should be discussed. Also, a discussion about the importance of placing realistic goals and the importance of the woman to feel she is in charge of her own orgasm should be emphasized.

Second step—the couple would need to receive a combination of techniques from couple therapy and CBT in order to alter the pressure he poses on her and also her self-pressure which is mostly associated with her jealousy. At the same time, they could experiment with introducing clitoral stimulation during partnered activity. After orgasm is experienced within the context of partnered sex, then engaging in intercourse using positions that maximize clitoral stimulation should be discussed.

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Male Sexual Dysfunctions

11

Yacov Reisman and Pedro J. Nobre

11.1 Introduction

The general term sexual dysfunction became part of the vocabulary of clinical medicine in 1970 with the publication of Masters and Johnson's *Human Sexual Inadequacy*. The terms for the specific sexual dysfunctions, which generally reference sexual behaviour with partners, have been evolving ever since.

Sexual functioning is a complex bio-psycho-social process, coordinated by the neurological, vascular, and endocrine systems. In addition to the biological factors and health status, psychosocial factors like societal and religious beliefs, personal experience, ethnicity and socio-demographic conditions, and psychological status of the person/couple play an important role in satisfying sexual functioning of a person. In addition, sexual activity incorporates interpersonal relationships, each partner bringing unique attitudes, needs, and responses into the couple. A breakdown in any of these areas may lead to sexual complaints or dysfunctions. (See Chaps. 2 and 5 for more information about the influence of sociocultural and relationship factors on sexual functioning.)

Classification of Sexual Dysfunctions Sexual dysfunctions are defined by DSM-5 as "a heterogeneous group of disorders that are typically characterized by a clinically significant disturbance in a person's ability to respond sexually or to experience sexual pleasure" [1]. The list of male sexual dysfunctions include male hypoactive sexual desire disorder, erectile disorder, premature (early) ejaculation, and delayed ejaculation (see Table 11.1). Besides these clinical conditions, DSM-5 also lists substance−/medication-induced sexual dysfunction, other specified sexual dysfunction, and unspecified sexual dysfunction. Moreover, subtypes are assigned

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Table 11.1 DSM-5 sexual dysfunction diagnoses and specifiers

	Female disorders	Male disorders
Desire	Sexual interest/arousal disorder	Hypoactive sexual desire disorder
Arousal	Sexual interest/arousal disorder	Male erectile disorder
Orgasm	Female orgasmic disorder	Delayed ejaculation Premature (early) ejaculation
Pain	Genito-pelvic pain/penetration disorder	NA

Specify whether:
Lifelong: The disturbance has been present since the individual became sexually active
Acquired: The disturbance began after a period of relatively normal sexual function
Specify whether:
Generalized: Not limited to certain types of stimulation, situations, or partners
Situational: Only occurs with certain types of stimulation, situations, or partners
Specify current severity:
Mild: Evidence of mild distress over the symptoms
Moderate: Evidence of moderate distress over the symptoms
Severe: Evidence of severe or extreme distress over the symptoms

according to the onset of the sexual problem (lifelong vs. acquired) and situations in which the symptoms usually occur (generalized vs. situational) [1].

Besides the DSM, the World Health Organization has recently published a new classification system for sexual dysfunctions (ICD-11) [2]. The sexual dysfunctions were integrated in a new chapter on Conditions Related to Sexual Health that presents an integrated (bio-psycho-social) approach to sexual health. Despite the more integrated approach, differences between DSM-5 and ICD-11 criteria for male sexual disorders are minimal (separation have been made between delayed ejaculation—and orgasmic dysfunction—subjective experience of orgasm).

DSM-5 categorizes these well-known symptom presentations but omits several problems. The patterns that are not well characterized in DSM-5 which include the so-called male sexual addictions or hypersexuality, persistent genital arousal syndrome, post-orgasmic illness syndrome, and pleasureless orgasm will be discussed in this chapter. (See Chaps. 30, 32, and 33 for more information on these conditions.) The topic of sexual dysfunction is too broad to be tersely summarized. To understand in detail the specific dysfunctions, readers can consult also the ESSM Manual of Sexual Medicine [3].

It is important to categorize the specific problem as seemingly always present (lifelong) or acquired after a period of normal sexual function (acquired) and as specific to a partner or a type of sexual activity (situational) or present with all partners and sexual circumstances (generalized). These distinctions help clinicians focus on the relevant history of the presenting problem—that is, to focus on the situation before the symptoms began or, if lifelong, to focus on past important developmental experiences.

Moreover, a number of bio-medical and psychosocial factors should be assessed during the diagnosis of male sexual dysfunctions: (1) partner factors (e.g. partner's

sexual problems; partner's health status); (2) relationship factors (e.g. poor communication; discrepancies in desire for sexual activity); (3) individual vulnerability factors (e.g. poor body image; history of sexual or emotional abuse), psychiatric comorbidity (e.g. depression, anxiety), or stressors (e.g. job loss, bereavement); (4) cultural or religious factors (e.g. inhibitions related to prohibitions against sexual activity or pleasure; attitudes towards sexuality); and (5) medical factors relevant to prognosis, course, or treatment [1].

Prevalence of Male Sexual Dysfunctions The prevalence of male sexual dysfunction in the general population is very high and in psychiatric practice even higher. Recent epidemiological studies suggest that sexual dysfunctions constitute a major public health problem. The NATSAL study indicated that 41.6% of men and 51.2% of women who had sex in the last year reported at least one sexual problem [4]. Among men, premature ejaculation is the most common male sexual dysfunction. The higher prevalence among psychiatric patients has been demonstrated for a variety of sexual disorders. Epidemiological data, however, cannot be translated into DSM-5 sexual dysfunction diagnoses because they do not always measure distress [1].

Although sexual problems are highly prevalent, these are frequently underrecognized and under-diagnosed in clinical practice. It is also noted that many clinicians also have lack of understanding about the approach for identification and evaluation of sexual problems. It is recommended that the treating psychiatrists and collaborating specialists need to possess broad knowledge and appropriate attitude towards human sexuality.

Evaluation of Male Sexual Dysfunctions Evaluation of any patient with sexual dysfunction requires thorough understanding about the type of sexual dysfunction, factors associated with or contributing to sexual dysfunction, and factors maintaining the sexual dysfunction. Accordingly, proper evaluation includes detailed history taking (sexual, medical, and psychosocial), focused physical examination, laboratory tests (when needed), self-reported questionnaires, and consultation with appropriate specialists. Careful attention should always be paid to the presence of significant psychiatric comorbidities and medication.

Discussing sex-related issues can be embarrassing both for the clinician and the patient. Patients often carry the feeling of failure or that they are abnormal. Clinicians should anticipate the embarrassment the patient might feel and acknowledge that it could be difficult talking about such issues. It is important to note that, in many cases, organic and psychogenic factors may coexist, particularly in individuals or couples with long-standing sexual dysfunction. In such cases, clinicians need to assess the independent and interactive role of both organic and psychogenic factors. This concept helps clinicians to put generalizations about sexual dysfunction into perspective, to remain humble, and to bring an intelligent scepticism to pronouncements about causality and treatment claims.

Some patients may not actually have a sexual dysfunction but may perceive that they do because of poor knowledge and negativistic attitude towards sex. Further, in some patients, the sexual problems may be attributed to the beliefs and cultural practices. The sexual lives of patients, however, are rarely as simple as various

professionals' interventions suggest. Care is frequently optimized when medical and nonmedical professionals collaborate to bring their different skills and knowledge to patients.

The clinician is called upon to separate:

- Sexual dysfunction that is the product of a psychiatric disorder
- Reactive symptoms that stem from having the sexual dysfunction
- Current life dilemmas beyond a DSM-5 diagnosis that impair sexual function or satisfaction
- Remote adversities during childhood or adolescence that undermined the person's ability to feel safe during the recurring intimate life experiences

The final selection of treatment should be made according to patient'/couple's choice. The therapist needs to inform the patient/couple about the available modalities and help them to make a reasoned choice. Accepted treatment goals need to be established at the start of treatment.

11.2 Hypoactive Sexual Desire Disorder in Men

11.2.1 Definitions and Epidemiology

Sexual desire encompasses both subjective and behavioural phenomena: sexual fantasies, sexual dreams, initiation of self-stimulation to orgasm, initiation of sexual behaviour with a partner, receptivity to sexual behaviour, genital sensations, and heightened responsivity to erotic cues in the environment. Its manifestations are so diverse that it has been difficult to generate research in the area. Sexual desire is the result of a positive interplay among internal cognitive processes (thoughts, fantasy, and imagination), neurophysiological mechanisms (central arousability), and affective components (mood and emotional states), the biological basis of which is almost unknown in humans. Relationship dimensions, psychological adaptation, cognitive factors, and biological determinants have all been related to sexual desire. (See Chap. 7 for more information on the neurophysiology of sexual response.)

Low sexual desire in men is one of the most difficult sexual disorders to define, evaluate, and treat. The main problem is the lack of a widely accepted definition. According to the DSM-5 classification scheme, male hypoactive sexual desire disorder (HSDD) is considered a sexual dysfunction characterized as a persistent or recurrent lack (or absence) of sexual fantasies and desire for sexual activity, as judged by a clinician taking into account factors that affect sexual functioning (e.g. age, general and socio-cultural contexts of the individual's life). Symptoms have persisted for a minimum of 6 months. The disturbance must cause marked distress or severe interpersonal difficulties, cannot be better accounted for by another major mental disorder (except another sexual dysfunction), and is not due solely to the effects of a substance or general medical condition [1].

Although there is a large number of studies on HSDD in women, research on HSDD in men is scarce. Furthermore, many men are treated for different sexual diagnoses while they are suffering from HSDD. Disorders such as depression or erectile dysfunction frequently coexist with low sexual desire. In addition, the DSM definition is based on the traditional model of human sexual response with linear model which also ignores the differences between male and female sexuality.

The most important population-based studies report that the prevalence of reduced sexual interest ranges from 3% to more than 50%. Interestingly, population-level sexual interest appears quite stable from the late teens up to about 60 years; thereafter it decreases markedly.

In a multicentre survey study involving 906 men (mean age 48.8 years) recruited for a pharmaceutical study, 30% met the DSM-IV criteria for HSDD as a primary diagnosis [5]. A survey conducted in the United States in 2004 involving 1455 men aged 57–85 years showed 28% of men reported lack of desire, with 65% of them feeling bothered about it [6]. According to expert opinion, it seems to be that the acquired and situational form of HSDD is the most common subtype for men [7].

Men are diagnosed with one of three subtypes of HSDD:

- Lifelong/generalized: The man has little or no desire for sexual stimulation (with a partner or alone) and never had.
- Acquired/generalized: The man previously had sexual interest with his current partner but lacks interest in sexual activity, partnered or solitary.
- Acquired/situational: The man was previously sexually interested with his current partner but now lacks sexual interest in him/her but has desire for sexual stimulation (i.e. alone or with someone other than his current partner).

11.2.2 Pathophysiology

In the case of acquired/generalized low sexual desire, possible causes include low levels of testosterone (T) or high levels of prolactin (PRL), various medical/health problems, and psychiatric problems.

Androgens such as testosterone appear to be necessary but not independently sufficient for a man's sexual desire. It appears that a minimum level of androgen is required for a man to be able to experience sexual desire. However, supra-physiological levels of androgens in blood do not correlate with higher level of sexual desire. Severe hyperprolactinaemia has a negative impact on sexual function, impairing sexual desire, as well as erectile function, and testosterone production. Hypothyroidism is another endocrine condition previously associated with male hypoactive sexual desire (HSD). This condition is associated with depression and could be the reason for this association [8].

It is well-known that psychiatric disorders, and in particular major depression, as well as their relative medical treatments, often induce a reduction of sexual desire [7]. In addition, depression can freeze several aspects of a couple's sexual behaviour, which can be regarded as the cause or the consequence of significant emotional

distress. On the other hand, psychological symptoms associated with depression, such as anhedonia, fatigue, and low energy, can affect sexual functioning. Antidepressants can also affect libido, sexual arousal, and orgasm/ejaculation. It is important to assess the role played by antidepressants in the sexual dysfunction of depressed patients. (See Chaps. 16 and 24 for more details.)

A reduced male libido may also be present in many chronic systemic diseases such as kidney failure, chronic liver diseases, haematological diseases, and HIV. In this case, the problem is multifactorial due to the presence of hormonal factors and intrapersonal and relational problems related to the deterioration of quality of life. It has been found that men with prostatitis/chronic pelvic pain syndrome reported significantly less frequent sexual desire or thoughts, less frequent sexual activities, less arousal/erectile function, less orgasm function, and sexual pain than men without any pain condition.

HSDD has obvious consequences on sexual functioning. A decreased sexual motivation can result either in a decrease of sexual consumption and erectile dysfunction (ED) or lower sexual activity, and ED might result in a lower sexual desire. It is in this case that HSDD is probably an evasive reaction, put in place to reduce the anxiety related to the impaired sexual performance.

More in the case of acquired/situational HSDD, possible causes include intrapersonal and relational problems (e.g. conflict in the couple, negative feelings), cognitive and cultural factors (e.g. sexual beliefs, automatic thoughts during sexual activity), intimacy difficulty, relationship troubles, or other stressing life events.

Studies about the role of psychological factors on male HSDD have indicated that cognitive and emotional dimensions play an important role in determining sexual desire. Men with conservative sexual beliefs and restrictive attitudes towards sexuality, as well as men who tend to focus more on negative thoughts during sexual activity (such as erection concerns), and less on erotic thoughts and who present fewer positive emotions, are more prone to have low sexual desire and develop HSDD [9–11].

11.2.3 Assessment

The diagnosis of HSDD in men can be difficult. The clinician asks about desire, interest, or wish for sexual activity. Most patients easily identify a change in their usual pattern, and this is the way in which the condition is identified most of the time in clinical practice. Sometimes, it is necessary to investigate the indicators of sexual desire which could be a good clinical clue. When a man presents himself with another sexual dysfunction, it is important to specifically look for the presence of HSDD. The management and eventual success of treatment depend on how the clinician effectively identifies and treats HSDD.

An accurate medical history is the key point for the correct classification of the symptom HSDD. It is important to explore all the possible causes, as well as substance abuse and use of medication. In generalized HSDD, physical examination (including examination of the genitals and signs of gynaecomastia or

galactorrhoea) and endocrinological assessment (measurement of serum total testosterone, PRL, and thyroid function) are needed. Regarding psychological and interpersonal factors, it is also very important to explore relationship satisfaction and intimacy, sexual beliefs (particularly conservative and restrictive attitudes towards sexuality), as well as emotions and cognitions typically presented during sexual activity. The inclusion of measures assessing these cognitive and emotional dimensions (e.g. sexual beliefs, cognitions, and emotions during sexual activity) is advisable in situations where psychological factors play a central role in explaining HSDD.

11.2.4 Clinical Management

Treatment of HSDD should be *etiologically oriented*. A comprehensive, integrative bio-psycho-social approach to both the male's and the couple's sexuality is usually required.

When hormonal disturbances are detected, an adequate therapy might improve sexual desire even in the short term.

When drugs potentially interfere with sexual desire, the removal or the substitution of the drug is not always possible, even though it could resolve the problem. HSDD could be a symptom of depression, and antidepressants themselves can induce or worsen HSDD. In these cases, the clinician should carefully evaluate the opportunity to change or adequately reduce current therapy. Management strategies include watchful waiting, dosage reduction, drug holidays, switching antidepressants, and use of add-on medications. Replacement of the antidepressant by another antidepressant with fewer sexual side effects (e.g. agomelatine, mirtazapine, bupropion, tianeptine, trazodone, vortioxetine, buspirone) is favourable. (See Chap. 24 for more details.)

When HSDD is mainly supported by a disruption of the relational or intrapsychic factors, a short-term psychotherapy might be appropriate. Psychological approaches to low desire have a long history and have been found to be effective with sustained improvements over time, particularly in women. However, there are no randomized control trial studies solely on the psychological treatment of men presenting with HSDD. Expert opinion recommends the use of *cognitive behavioural approaches* since they integrate both intrapsychic (i.e. sexual beliefs, cognitions, emotions associated to sexuality) and interpersonal dimensions [12] (see Chap. 12 for more details on counselling and sexual therapy).

The common aim is to encourage the recreational and hedonistic aspect of sexuality by exploring different erotic experiences, as well as working on sexual beliefs and cognitions related to sexuality [13]. It is important to work on improving communication between partners, the lack of which is often at the bottom of the problem.

When conflict and relationship distress may cause low sexual desire, the patient and his partner should be referred to a couple/relationship therapy.

Currently, there is no pharmaceutical approach commercially available that can directly increase sexual desire.

Case Report 1

A 43-year-old man presented for hypoactive sexual desire (HSD) associated with erectile dysfunction (ED). He worked as a clerk and he was not very happy or satisfied with his job. He was a past smoker and only rarely consumed alcohol. He had normal pubertal development, and he was eligible for the army service. His family history was negative. He had a past history of major depression currently treated with paroxetine 20 mg daily. His partner was 40 years old, and they have been married for 7 years. The partner reported reduced libido, orgasmic difficulties, and normal menstrual cycle. They had no children.

The patient had difficulty in maintaining an erection, secondary to low desire, in more than 90% of cases. Low desire started after starting paroxetine, gradually. He also reported mild impaired sleep related erections, and increased time to ejaculation. He reported intercourse frequency of less than once per month. Severe psychiatric disorder was excluded. Physical examination was essentially normal (BMI 23.4 kg/m^2, waist 90 cm). Blood sampling showed normal serum testosterone, prolactin, glucose, and thyroid function.

Clinical diagnosis was secondary HSDD probably caused by depression and use of SSRI and related to partner's low sexual desire and orgasmic difficulties. ED was secondary to HSDD. Treatment included changing SSRI (paroxetine) to antidepressant with less sexual side effects (mirtazapine) and couple sexual therapy as it can be speculated that differences in the expression of sexual drive between the partners might produce sexual problems partially compensated by reduction of sexual desire in the opposite partner.

After 3 months, the patient showed a resolution of sexual dysfunction with normalization of sexual desire and erectile functioning. This situation induced also an improvement of couple satisfaction and partner sexual functioning.

11.3 Erectile Dysfunction

11.3.1 Definitions and Epidemiology

An erection is a "neurovascular event" meaning that there needs to be a proper function of nerves, arteries, and veins. An erection involves the central nervous system, the peripheral nervous system, physiological and psychological factors, local factors within the erectile tissue (corpora cavernosa) or the penis itself, as well as hormonal and vascular components. The penile portion of the process leading to an erection represents only a single component of a very complex process.

Erections occur in response to touch, smell, auditory, and visual stimuli that trigger pathways in the brain. Information travels from the brain to the nerve centres at the base of the spine, where primary nerve fibres connect to the penis and regulate blood flow during erections and afterward (see Chap. 7 for more information on the neurophysiology of sexual response).

Nearly every man in his lifespan experiences some episodes of erectile problems which are usually short and, in the majority of cases, are related to certain and special life circumstances, problems and situations with stressful factors, and an increased sympathetic tone with elevated plasma concentrations of catecholamines (noradrenaline/adrenaline). Under normal circumstances, these temporary erectile problems disappear once the problem is resolved and generally do not require a physician's consultation and aid.

ED is defined, according to DSM-5, as the inability to achieve and/or maintain an erection that is satisfactory for the completion of sexual activity for a minimum duration of 6 months, and the patient must experience the condition in all or almost all sexual activity situations and with marked distress [1].

ED and premature ejaculation are the most common male sexual disorders. Prevalence data for ED are clearly age-dependent, with a steep increase beyond the fifth decade. Some report prevalence of up to 50% of men aged 40–80 years [6].

Categorization of the severity of ED was created based on the International Index of Erectile Function (IIEF), using a scoring system from 1 to 30 in the Erection Function Domain of the IIEF. ED is subdivided into mild (IIEF-EF score 17–25), moderate (IIEF-EF score 11–16), and severe (IIEF-EF score <11), with an IIEF-EF score of 26–30 indicating a normal erectile function [14].

11.3.2 Pathophysiology

There is evidence in the literature that ED in patients older than 40 years is significantly associated with cardiovascular risk factors such as diabetes, hypertension, coronary artery disease, dyslipidaemia, atherosclerosis, and metabolic syndrome. ED and coronary artery disease (CAD) frequently coexist. This substantially increased risk of cardiovascular risks/events in men with ED as compared with age-matched non-ED men shown in the literature, and therefore, the manifestation of ED must be considered to be a marker (warning sign) for occult CAD, with a significant likelihood of a subsequent major cardiovascular event [15]. The severity of erectile dysfunction correlates with the severity of cardiovascular disease because the same pathophysiology that occurs in the penile vessels also occurs in the vessels of the heart, known as the coronary arteries. However, due to the smaller size of the penile vessels compared to the vessels of the heart, ED manifests first and may be followed by a cardiovascular event in the next 2–3 years.

In addition to atherosclerosis, other disorders of both the arterial supply and the venous drainage of the penis can result in ED. Regarding ED caused by veno-occlusive dysfunction, also called cavernous insufficiency or venous leak, the pathophysiology of this condition is not located in the veins themselves but in a decrease of the relaxant capacity of the smooth muscle cells within the cavernous bodies. Physiologically, once erection occurs, the cavernous smooth muscle cells relax and expand and compress the veins draining blood from the cavernous bodies into the deep dorsal penile vein against the tunica albuginea. Surgery in the urogenital area and the pelvis (radical prostatectomy and cystectomy) may also cause

arterial or venous abnormalities. Also, injury to the perineum and the pelvic area may cause abnormal venous drainage of the penis.

Diseases of the central and peripheral nervous system may cause ED. Common diseases of the central nervous system are multiple sclerosis, spinal cord injury, Parkinson's disease, and cerebrovascular disease. Diseases of the peripheral nervous system that may cause ED are peripheral polyneuropathy (e.g. caused by diabetes or by chronic alcohol consumption), prolapses of intervertebral discs, or iatrogenic (surgical) injury to the pelvic nerves [15].

Androgens, particularly testosterone, are necessary, though not only for sexual desire in men. They are essential in the maintenance of desire and have an important role in regulating erectile capacity influencing the release and activity of stimulatory neurotransmitters at the brain level and the activity of the nitric oxide (NO) release, induced by parasympathetic penile nerve fibres. Furthermore, elevated serum prolactin has a negative impact, especially on men's sexual desire and erectile function.

A number of medications and recreational drugs are associated with ED. They exert their adverse effects either through central inhibitory neuroendocrine mechanisms or on the metabolism of the hormones (testosterone/prolactin). Antihypertensives, especially thiazides and non-selective beta blockers, antidepressants/neuroleptics, antiarrhythmics, antiandrogens, estrogens, 5-alpha reductase inhibitors and recreational substances are associated with ED.

Not only operation in the pelvic region presents a risk for erectile dysfunction but also radiation therapy as well [15].

Psychological factors can predispose, trigger, or maintain ED. Predisposing factors are those that make somebody vulnerable to the onset of ED, but many of those may also have a maintaining role. Trigger factors can explain why the problem was initiated at a certain situation or time. Patients usually want to understand what triggered the problem. Maintaining factors are those that explain why the problem is still present.

At the predisposing level, studies have shown that neurotic personality traits are significantly higher in men with erectile dysfunction [16]. Moreover, studies have indicated that men with ED typically report "macho" beliefs such as "a man should be able to last all night; "a man always wants and is ready to have sex"; "a real man has sexual intercourse very often"; and demanding beliefs about women's sexual satisfaction and their reaction to men's failure, e.g. "the quality of the erection is what most satisfies women"; "a man who doesn't sexually satisfy a woman is a failure" [17]. These demanding and unrealistic sexual beliefs may work as specific predisposing factors, making men more vulnerable to develop ED.

Regarding maintaining factors, studies have indicated that men with ED tend to interpret negative sexual events as a sign of failure and personal incompetence: "I'm incompetent"; "I'm a failure" [18, 19]. Additionally, studies have indicated that men with ED typically present thoughts related to erection difficulties and failure anticipation and less erotic thoughts during sexual activity [20]. ED patients reported significantly more sadness, disillusionment, and fear, and significantly less pleasure and satisfaction during sexual activity compared to sexually healthy men [21], suggesting that depressed mood is strongly associated with sexual dysfunction.

Another important psychological factor is performance anxiety. Performance anxiety is a process that involves the interplay between cognitive, affective, behavioural, and physiological responses throughout a sexual situation. Performance anxiety may be triggered by any sexual stimuli that the man associates with his erectile capacity or incapacity. Negative emotions may cause erectile failure by distracting attention from sexually pleasurable stimuli and/or by evoking excessive sympathetic arousal and contraction of the penile smooth muscle cells. The increase of the sympathetic tone caused by performance anxiety leads to an increase of both noradrenaline release (from the sympathetic nerve and adrenaline excretion from the adrenal glands) into the blood circulation, counteracting both the onset of erection and the maintenance of the erection (which are primarily induced by stimulation of the parasympathetic nerve system).

Studies have consistently demonstrated a significant relationship between ED and depression. In addition, the use of antidepressant drug therapy is often associated with ED as well. Population studies suggests that moderate or severe depression may cause erectile dysfunction (ED), and ED per se may cause or exacerbate depressive mood [22] (see Chaps. 16 and 24 for more information).

Patients with erectile dysfunction will often present with an anxiety disorder, and in many cases it is unclear which the primary disorder is. The presence of anxiety symptoms in patients with arousal disorders has been associated with poor treatment outcomes (see Chap. 18 for more information).

Relationship quality is a crucial factor that influences the onset and maintenance of ED. Men experiencing ED have been noted to also experience lower satisfaction with their relationship. Relationship distress is among the most frequent sequelae of sexual dysfunction, as the strain of coping with sexual incompatibility can lead to a loss of trust and closeness in the relationship and may motivate one or the other spouse to seek sexual gratification outside of marriage. (See Chap. 5 for more information.)

Although given much less attention, contextual factors are important as a cause of ED. They encompass daily stressors, such as serious financial struggles, unemployment, fatigue from child-rearing, and the burdens of care-taking for a sick parent, child, or partner. They also include environmental factors such as partners working in different shifts and not having sufficient privacy.

11.3.3 Assessment

The diagnostic assessment includes individual assessment and when possible as a couple. Detailed medical, sexual, and psychosocial history is often needed. Attention should be paid to the risk factors as stated above. The physical examination should include a general screening for medical risk factors or comorbidities that are associated with ED, an evaluation of secondary sexual characteristics, and an assessment of the cardiovascular, neurological, and genital system, with particular focus on the genitals. The relevant hormones such as total testosterone and prolactin and in special indications TSH should be tested. Assessing routine laboratory parameters such

as serum-cholesterol with LDL and HDL cholesterol and triglycerides, serum glucose, and/or glycosylated haemoglobin (mandatory in diabetic ED patients to evaluate diabetes control) should be considered standard. Specialized diagnostic tests are widely available but have little impact on the selection of therapeutic options and are mandatory only in cases in which a reversible form of ED is suspected.

11.3.4 Clinical Management

Following completion of the diagnostic evaluation, patients should be given a detailed description of the findings with specific explanations of the causes and the underlying pathophysiology. This stage should be used as an opportunity to educate patients on the anatomy and physiology of sexual function and to provide appropriate understanding of the possible causes. Both psychogenic and organic factors associated with the onset and maintenance of ED need to be appropriately explained. Available medical and psychological treatment options must be discussed, even when the patient prefers a specific treatment method. This is in accordance with the essential principle of patient-centred medicine and shared decision-making.

When comorbidities are present, *lifestyle modifications* may be important in preventing or reducing erectile dysfunction. Evidence recommends that increasing exercise, reducing weight to achieve a body mass index less than 30 kg/m^2, and quitting smoking may restore erectile function in men with mild to moderate ED [15].

11.3.4.1 Medical Interventions

Phosphodiesterase type 5 inhibitors (PDE5is) are the available oral medication for treatment of ED. PDE5is need sexual stimulation for their activity, as they reinforce the normal sexual response by increasing blood flow and muscle relaxation in the cavernous bodies. Currently, there are five different compounds available in European countries that are prescribed for ED: sildenafil, vardenafil, tadalafil, avanafil, and udenafil. Despite the common mechanism of action, PDE5is have slightly different pharmacological characteristics. Although all of them work within 30 min to 2 h (depending on their pharmacokinetic profile), the duration of action is different (Table 11.2).

About 10% of users will experience some degree of side effects. The most common side effects are headache, flushing and redness in the face, nasal congestion, indigestion, back pain or muscle aches, and vision changes, such as blurriness, blue vision, and increased susceptibility to brightness.

Studies showed that about one-third of patients require 6–8 doses in order to reach a maximum threshold of response, and patients trying the medication only once or twice may be disappointed from the poor clinical effect and withdraw from treatment. The prescription of oral pharmacotherapy for ED by a physician who provides clear instructions ensures that the patient makes appropriate use of the treatment.

In general, all PDE5 inhibitors are successfully used on an on-demand basis (usually taken at least 1 h before intercourse). One PDE5, tadalafil 5 mg, has been approved for daily use (once a day), showing similar efficacy and safety as compared with the on-demand use of all other available PDE5 inhibitors. Tadalafil daily

Table 11.2 Characteristics and pharmacokinetics of the most available PDE5 is

Characteristic	PDE5 inhibitor			
	Avanafil	Sildenafil	Vardenafil	Tadalafil
T_{max} (range)	30–45 min	30–120 min	30–120 min	Not reported
T_{max} (median)	0.5–0.75 h	1 h	1 h	2 h
Effect of food on T_{max}	Delayed by 1.25 h	Delayed by 1 h	Delayed by 1 h	None
Plasma protein binding	99%	96%	95%	94%
Half-life	6–17 h	3–5 h	4–5 h	17.5 h (mean)
Accumulation in plasma	None	Not reported	None	Not reported
Effect on exposure/clearance, of:				
Age	None	Reduced clearance	Reduced clearance	Reduced clearance
Mild renal impairment	None	None	None	Increased exposure
Moderate renal impairment	None	None	None	Increased exposure
Severe renal impairment	No data	Increased exposure	Increased exposure	Increased exposure
Mild hepatic impairment	None	Increased exposure	Increased exposure	None
Moderate hepatic impairment	Reduced exposure	Increased exposure	Increased exposure	None
Severe hepatic impairment	Not studied	Not studied	Not studied	Limited data

may reflect an attractive alternative, as taking away the need to schedule sexual activities and thus allowing a spontaneous and natural sex life.

The officially approved drug for *intracavernosal injection therapy* worldwide is alprostadil (prostaglandin E1). In some countries, some other drugs are approved, including combination of phentolamine with either papaverine or the combination of vasoactive intestinal polypeptide (VIP) plus phentolamine. Injection therapy is a safe and effective second-line treatment for those men with ED who fail oral therapy or show contraindications to PDE5is such as nitrate or NO donor medications, respectively. The main complication, which is priapism (an unwanted persistent rigid erection lasting for more than 6 h), can be avoided with medically supervised dose-titration office visits.

Intraurethral alprostadil (MUSE) is an officially approved intraurethral medication which contains the same drug (PGE 1, alprostadil) that is used for intracavernosal injections. Efficacy was clearly inferior to intracavernosal injection therapy, while the most common adverse effects are penile pain, urethral burning, dizziness, and fainting. Candidates for both intracavernosal and intraurethral alprostadil therapy are typically those patients in whom oral drug therapy does not work because of severe damage to the cavernous nerves, which is quite often the case after major pelvic surgery for cancer or in patients with severe polyneuropathy such as diabetics.

A *vacuum pump* is a device which can be used to mechanically induce a completely rigid erection. It is a non-invasive treatment that can be used alone or in conjunction with oral medications or other ED treatments like intracavernous injection or intraurethral therapy. Because the cavernous bodies are typically filled with low-oxygenated blood after vacuum-induced erections, the penis looks more bluish and feels cooler, which makes the erection feel somewhat unnatural. Therefore, the acceptance and long-term use rates of vacuum devices are relatively low.

Penile prosthesis is a third-line medical treatment option for men with ED. Penile implants are typically used in patients with severe organic ED (so-called end organ failure), when any other treatment option has failed, which is typical in patients with long-term diabetes. Sometimes, a penile prosthesis remains the only option in severely scarred penises after priapism or sometimes also in penile curvature (Peyronie's disease). Penile prostheses do not change the sensation on the skin of the penis or a man's ability to reach orgasm. Ejaculation is not affected by a penile implant. Once a penile prosthesis is inserted, there is normally no way back—that is, if there is a need for the removal of an implant due to infection or malfunction and it is not replaced by a new device, the penis remains non-functional regarding the erection mechanism.

Psychosexual treatment Psychosexual treatment of ED consists of a variety of interventions including *cognitive-behavioural interventions*, *interpersonal interventions and systemic interventions*, traditional *sex therapy*, *behavioural exercises* (such as sensate focus, masturbation exercises, and sexual stimulation techniques), *mindfulness training*, *communication skills training*, and *psychodynamic interventions*. (See Chap. 12 for more information regarding psychosexual therapies.)

The selection of the appropriate interventions and their combination with medical interventions, such as PDE5is, depends upon the needs and preferences of the patient and the couple. While medical interventions with PDE5 inhibitors may be used regardless of the specific ethology of the problem, psychosexual interventions, relationship emphasis, and sensitivity to the psychological issues of the man and his partner all contribute to positive treatment satisfaction.

Meta-analyses of published studies on the efficacy of psychological treatments for sexual problems suggest that psychological interventions in general are effective treatments for sexual dysfunction [23]. Regarding ED, studies have supported the efficacy of cognitive behavioural therapy. Munjack et al. showed that patients submitted to *Rational Emotive Therapy* reported significantly more sexual intercourse attempts, significantly reduced sexual anxiety, and significantly higher rates of successful intercourse attempts compared to the wait list control group [24]. Additionally, McCabe et al. indicated that men submitted to an Internet-based cognitive behavioural intervention reported significantly greater improvements in erectile functioning and sexual relationship satisfaction compared to a control group [25].

In addition, studies comparing a combination of psychological treatment (including sensate focus and cognitive techniques) and medication against medication only have shown the superiority of the combined treatment. Moreover, over time, men in the medication alone group showed decreased sexual function, whereas men in the combined treatment group maintained gains in most sexual function domains.

Cognitive behavioural therapy for sexual dysfunction uses sensate focus and cognitive restructuring as the major treatment techniques. (See also Chap. 12 for a review.)

Sensate focus is aimed at reducing anxiety about sexual performance and promoting changes in attentional focus from self-monitoring (spectatoring) to the pleasurable sensations associated with sensual touch. The technique uses gradual exposure to sexual activity, from non-demanding non-genital touching to genital and intercourse-oriented exercises. In the first phase, the couples are encouraged to engage in mutual touching and pleasurable stimulation excluding direct genital contact and intercourse. Genital touching and caresses without orgasm are allowed in the second phase while keeping a ban on intercourse. The third phase allows intercourse without orgasm, while the fourth and last phase allows intercourse and orgasm.

Cognitive restructuring in sex therapy is aimed at challenging dysfunctional sexual beliefs, modifying the meaning assigned to negative sexual events, and changing the pattern of negative thoughts and emotions during sexual activity. The main components of cognitive restructuring are (1) evaluating the advantages and disadvantages of the sexual beliefs, (2) analysing the evidence for and against the beliefs, (3) testing the validity of thoughts in real life settings, (4) formulating alternative beliefs, and (5) practicing alternative beliefs. (See also Chap. 12 for a review.)

Besides the more classic cognitive behavioural interventions, *mindfulness-based approaches* have been recently used with promising results in the treatment of sexual dysfunction. Mindfulness-based treatments have shown psychological effectiveness across a wide range of clinical problems, ranging from chronic pain to psychological problems such as generalized anxiety disorder, eating disorders, ruminative thoughts, negative affect, and recurrent depression. Recent studies have suggested a positive effect of mindfulness on women's sexual health [26, 27], and a pilot study has supported its feasibility in men with ED [28]. Although these are only preliminary findings, the integration of mindfulness into cognitive behavioural treatment programs for sexual dysfunction, including erectile dysfunction, seems promising.

Effective treatment requires the ability to synthesize techniques and appropriately adjust them to the needs of the patient and the couple. The therapist must to be able to assess the extent of the relationship problems contributing to the generation and maintenance of ED as this could be a crucial factor for the success of the ED treatment.

Case Report 2

A 26-year-old single man presents with a history of inability to obtain a satisfactory erection for intercourse. In history taking, you find out that the problem started exactly 9 months ago in which he had a marked reduction in erection rigidity that sometimes he is unable to penetrate. After a few attempts

with different sexual partners, he now avoids sexuality and also stopped dating. Sometimes he noticed morning or nightly erections, and they are less firm than in the past. During masturbation, he can achieve much better erections. He has normal desire and is able to ejaculate and to experience orgasm.

Nine months ago, he had a problematic situation in which the erection was "weak" so he was not able to put a condom, and since then in each attempt he had negative thoughts ("I need to get an erection", "I probably fail", etc.) and experiences anxiety with being judged by the sexual partner. It causes him embarrassment and feeling of incompetence. The erection difficulties cause him a lot of suffering and isolation.

He is healthy, doesn't use any medication or drugs, is a none-smoker, and drinks alcohol only on social occasions.

IIEF erectile function domain shows a score of 15 (moderate ED).

The diagnosis is erectile dysfunction due to performance anxiety. After explanation and education, on his request, he received on demand PDE5i with effective results and underwent cognitive behavioural therapy (to challenge negative thoughts and dysfunctional beliefs) and mindfulness training (to focus his attention on sexual stimulation and promote awareness of sexual sensations and pleasure). A few months later, he didn't need any PDE5i anymore and starts dating again.

11.4 Premature Ejaculation

11.4.1 Definitions and Epidemiology

There are several different clinical manifestations of rapid ejaculation, ranging from the complaint of a normal phenomenon to a sexual dysfunction syndrome. Therefore, management should be individualized for each person. PE is a self-reported complaint that affects 20–30% of men. This subjective impression may differ from time to time, depending on the patient's psychological and physical condition. The actual prevalence of PE may have a large variation from study to study because of different evaluation modalities and a lack of a consensus on its definition. The stopwatch-measured intravaginal ejaculation latency time (IELT) seems to be one of the most objective parameters used to define PE, but loss of control during ejaculation with consequent interpersonal difficulties and distress is also an important criterion for diagnosis.

According to the DSM-5, PE is defined as persistent or recurrent ejaculation with minimal sexual stimulation before, upon, or shortly after penetration within approximately 1 min of beginning sexual activity and before the person wishes it. Early ejaculation symptom must have been present for at least 6 months and be experienced on all or almost all (approximately 75%) occasions of sexual activity [1].

However, most organizations and societies include in their definitions the concept of latency time to ejaculation, the control of ejaculation, and the distress or impact on interpersonal difficulties. The ISSM also recently adopted a new classification that Waldinger proposed in 2007 [29, 30]. The new classification included two other variant types: "natural variable PE" and "premature-like ejaculatory dysfunction". The presence of four different types of PE (i.e. lifelong, acquired, natural variable, and premature-like ejaculatory dysfunction) suggests different underlying pathogeneses and suggests that the treatment approach to these different types of PE should be individualized on the basis of symptoms and expectations.

11.4.2 Pathophysiology

The exact aetiology of PE is still unknown, but in its pathogenesis are several possible risk factors that include a diverse range of biological and psychological factors. Biological factors such as hypersensitivity of the penile glans, disturbance of central serotonin neurotransmission, hyperthyroidism, and local irritation due to prostatitis are linked to the pathogenesis of lifelong and acquired PE. Waldinger et al. proposed that PE may result from 5-hydroxytryptamine (5-HT) receptor dysfunction. Hyposensitivity of the 5-HT2C receptor and hypersensitivity of the 5-HT1A receptor are hypothesized as major neurobiological factors in PE [31]. The role of serotonin disturbance in neurobiological ejaculation control can explain only part of the pathophysiology of lifelong PE and acquired PE. The existence of men classified as having the natural variable PE subtype or the premature-like ejaculatory dysfunction subtype may moreover indicate different underlying pathogeneses and suggest that individualized approaches should be used. Several psychological factors (e.g. anxiety, an early unpleasant sexual experience or abuse, and adverse familial relationships) may influence sexual dysfunction, including PE. Men with PE also reportedly have decreased sexual self-confidence, difficulty in establishing relationships, and distress of not satisfying their partners. Men with natural variable PE experience early ejaculation in situational or coincidental conditions; the problem may be inconsistent and occur irregularly. They usually experience diminished control of ejaculation with either a short or normal ejaculation time. Men with premature-like ejaculatory dysfunction are preoccupied with an imagined early ejaculation or lack of control of ejaculation, but the actual IELT is in the normal range or even of longer duration.

11.4.3 Clinical Management

Differences in the underlying pathophysiology and the aetiology of the four different types of PE determine the choice of treatment. The management approach should be individualized according to the patient's condition and expectations. The partner's attitude and the sexual relationship within a couple should also be considered in the management plan as this could maintain or exacerbate the dysfunction.

The management of acquired PE is aetiologically specific and may include pharmacotherapy for managing erectile function in men with co-morbid ED. Behavioural therapy is indicated when psychogenic or relationship factors are present and is often best combined with PE pharmacotherapy in an integrated treatment program. Men with age-related penile hypoesthesia need more time and more direct stimulation. They should be educated, reassured, and instructed in revised sexual techniques that maximize arousal. Masturbation before the anticipation of sexual intercourse is another technique used by many young men.

Psychological counselling may help the PE patient and his partner improve their overall relationship, and the effect of psychological counselling or behavioural therapy may be augmented by pharmacotherapy. The principles of treatment are to learn to control ejaculation and manage and resolve the possible snowball effect that PE has on the man, partner, and couple. These snowball effects include the development of performance anxiety, diminished self-esteem, avoidance of sexual activity, partner's anger and hostility, and a significant decrease in the quality of the interpersonal relationship. Three common factors that make psychotherapy effective include (1) empowering the patient to experience themselves as having the ability to create change and impact contextual factors; (2) providing a safe and empathic environment where the patient can explore obstacles, choices, and meanings of his psychological and behavioural dilemmas; and (3) conveying hopefulness and realistic expectations regarding outcomes. In *cognitive behavioural therapy*, the patients learn to recognize that their negative thought patterns might be contributing to the problem of PE and are then taught how to exchange the negative thoughts with positive affirmations and cognitive restructuring. In sex therapy, men learn to identify the signs that they're about to climax and are recommended to use a "stop and start" approach where they stop moving during sex to help them relax. This method has been shown to be successful, but with lower effectiveness in long term studies. Clinical studies [32] and expert opinion [12] support the use of psychological interventions for PE (*cognitive restructuring and behavioural interventions such as stop start, squeeze, and sensate focus*); however, most outcome studies so far have been uncontrolled, with small samples and limited or no follow-up.

Pharmacotherapy Many psycho-pharmacological compounds and drugs have been used to prolong or delay the ejaculation time; however, these treatments have had limited success.

The ejaculatory adverse effects, including delayed ejaculation and secondary anejaculation, resulting from the use of *SSRIs* make these drugs potentially useful in managing PE. Clomipramine, fluoxetine, paroxetine, citalopram, escitalopram, and sertraline seem to be safe treatment options for PE patients who had previous psychological treatment (see Table 11.3).

In 2004, the American Urology Association recommended topical lidocaine-prilocaine cream and serotonergic antidepressants as the treatment of choice. However, none of the aforementioned drugs had FDA- or EMA-approved indications for PE treatment (i.e. off-label use). Clomipramine and SSRIs may both delay ejaculation, at the expense of the diminution of libido and a moderate decrease in penile rigidity [30].

Table 11.3 Efficacy and side effects of drugs used in the management of PE

Drug	Dose	Usage	Side effects	Relative IELT increase
Clomipramine	12.5–50 mg	PRN Daily dose	Fatigue	4
			Nausea	
			Dizziness	
			Dry mouth	
			Hypotension	
Unlicensed SSRI		Daily dose	Fatigue	
– Escitalopram	20–40 mg		Nausea	2
– Fluoxetine	20–40 mg		Diarrhoea	5
– Fluvoxamine	25–50 mg		Yawning	1.5
– Paroxetine	10–40 mg		Diaphoresis	8
– Sertraline	50–200 mg		ED	5
			Decreased libido	
Dapoxetine (licensed SSRI)	30–60 mg	PRN	Nausea	2.5–3.0
			Diarrhoea	
			Headache	
			Dizziness	
Desensitizing agents	Smear	PRN	Numbing of vagina	4–8
– EMLA			Irritation	
– SS cream			ED	
– Tempe (PSD502)	Spray			
PDE5-I		PRN	Headache	
– Vardenafil	10 mg		Flushing	
			Nausea	
Tramadol	50 mg	PRN	Dizziness	3.6–7.0
			Nausea	
			Addiction	

IELT intravaginal ejaculation latency time, *PE* premature ejaculation, *ED* erectile dysfunction, *SSRI* selective serotonin reuptake inhibitor, *PRN* pro re nata

Dapoxetine was the first oral pharmacologic agent designed to treat men with PE. Dapoxetine is a short-acting SSRI with a half-life of 60–80 min and a 95% clearance rate after 24 h. Dapoxetine hydrochloride is rapidly absorbed orally. The time to a maximal plasma concentration is approximately 1–2 h. The rapid absorption and clearance rate characteristics have made this novel SSRI suitable for on-demand use. The most common side effects associated with the on-demand use of 30 mg or 60 mg dapoxetine are nausea (11.0% and 22.2%, respectively), dizziness (5.8% and 10.9%), headache (5.6% and 8.8%), diarrhoea (3.5% and 6.9%), somnolence (3.1% and 4.7%), fatigue (2.0% and 4.1%), insomnia (2.1% and 3.9%), and nasopharyngitis (3.2% and 2.9%). Most side effects however were

transient, mild in their severity, and tolerable by patients. Orthostatic hypotension and syncope were noted during clinical studies and should be a major safety concern at the time of prescription. The incidence of syncope during clinical studies was 0.19% of subjects receiving the first dose of dapoxetine; this was reduced to 0.08% for subsequent doses. Unlike existing data on SSRIs, the safety data of dapoxetine showed no evidence of mood changes, suicidality, or withdrawal syndrome after treatment.

Topical anaesthetics were used for years to treat PE patients. Many commercial topical preparations are available, but they are only indicated for local analgesic purposes and not for PE treatment. Most of these products consist of a mixture of lidocaine and prilocaine in a cream, ointment, gel, or spray formulation and are designed for local anaesthesia. Off-label use of these products for PE may cause glans numbness or may even cause ED at an excessive dose. The optimal formulation and therapeutic dosage for the purpose of PE treatment are not yet established. Safety concerns about systemic side effects from lidocaine and the influence of transvaginal absorption on the female partner need further clarification by using well-designed clinical studies. A novel aerosolized lidocaine-prilocaine (2.5%) spray, called PSD502, was recently developed to treat lifelong PE. Another topical preparation, called SS cream, consists of nine natural herb extracts. Its exact mechanism of action remains unclear [30].

Tramadol is an effective analgesic that combines opioid receptor activation and reuptake inhibition of 5-hydroxytryptamine (5-HT) and noradrenaline. The mechanism of action of the non-opioid component of tramadol is mediated through alpha2-agonistic and serotoninergic activities by inhibiting the reuptake of noradrenaline and 5-HT. This feature and its short half-life (1.7 h) and rapid absorption have made on-demand tramadol a potential treatment for PE. Because of the lack of strong efficacy and safety evidence from large-scale clinical studies and because of risk for addiction, the ISSM guidelines do not recommend the use of tramadol for treating PE [30].

Phosphodiesterase type 5 inhibitors (PDE5is) are indicated for patients with PE and comorbid ED. However, their use in PE patients without ED is not confirmed by clinical studies [30].

No evidence supports using surgical procedures to improve PE. At present, there are no guidelines to recommend surgical treatment for PE management.

Case Report 3

A man of 26 years reports about extreme premature ejaculation. In coitus he ejaculates within 1 min, sometimes even before coitus has taken place. He also ejaculates several times before he had his pants off. He is very embarrassed about it. It prevents him from entering into sexual contacts. In addition, he has trouble with social interaction. He has often been cheated on by sexual partners. In addition to the fast ejaculation, he also reports pain in his

testicles and on the glans penis. He does not have this constantly, but occasionally. Furthermore, he experiences mild depression, he is tense, and he has trouble talking about the problem. He has normal desire, erections, and orgasm. But in the last year, he noticed that his erections are less firm. During masturbation, it takes more time to ejaculate; however this is still only about 1 or 2 min. As a results, he avoids getting into relationships and sexual contacts. According to him, he had two failed relationships because of the sexual problem. He does not have any medical complaints; nor does he use any medications. He complains of frequent urges and micturition of about 8 times a day. On physical examination, there are no specific signs except hypertonic pelvic muscles.

Clinical diagnosis is primary premature ejaculation combined with pelvic floor hypertonia and latent depression. Treatment includes a multimodal approach. Patient has been referred for pelvic floor physical therapy and has been advised to start treatment with daily use of SSRI and cognitive-behavioural therapy for depression, relaxation, and trust, as well as start-stop masturbation exercise.

11.5 Delayed Ejaculation

11.5.1 Definitions and Epidemiology

Delayed ejaculation is typically a self-reported diagnosis; there is no firm consensus on what constitutes a reasonable time frame for reaching orgasm. The DSM-5 and ICD-11 classify delayed ejaculation as belonging to a group of sexual dysfunction disorders typically characterized by a clinically significant inability to respond sexually or to experience sexual pleasure [1, 2]. The term delayed ejaculation (DE) (also called retarded ejaculation, or inhibited ejaculation) has been used to describe a marked delay in or inability to achieve ejaculation. The man reports difficulty or inability to ejaculate despite the presence of adequate sexual stimulation and the desire to ejaculate. The condition must persist for a minimum of 6 months with no specific duration of ejaculation latency. The condition is only a problem if it causes significant distress for the patient or his partner. In most cases, the diagnosis is made by self-report of the individual. Of all the male sexual dysfunctions, DE is the least understood, least common, and least studied. This condition can be lifelong (primary) or acquired (secondary). Also it may be global or situational. DE was shown to be associated with significant reduction in health-related quality of life as well as self-esteem, anxiety, and depression and has been linked to reduced sexual satisfaction and relationship dissatisfaction and discord.

Emission and ejaculation usually require external genital stimulation (nocturnal emission being the notable exception). Efferent impulses travel from the pudendal nerves and reach the upper lumbar spinal sympathetic nuclei. Via the hypogastric

nerve, the impulses activate secretions and transport sperm from the distal epididymis, vasa differentia, seminal vesicles, and prostate to the prostatic urethra. Closure of the internal urethral sphincter and concomitant relaxation of the external sphincter direct semen into the bulbous urethra, resulting in emission. The somatomotor efferent of the pudendal nerve then produces subsequent rhythmic contractions of the bulbocavernous muscle, forcing the semen through a pressurized passage (the narrowed urethral lumen compressed by the engorged corpora cavernosa) and yielding 2–5 mL of ejaculate. Because this action is involuntary, integrated autonomic and somatic actions are required for completion. The cerebral network modulating and controlling the final common output from all ejaculatory stimuli includes the posteromedial bed nucleus of the stria terminalis, the posterodorsal medial amygdaloid nucleus, the posterodorsal preoptic nucleus, and the parvocellular part of the subparafascicular thalamus. It has been suggested that the ejaculatory reflex is primarily regulated by the central serotonergic and dopaminergic systems, with other neurotransmitters (e.g. acetylcholine, adrenaline, neuropeptides, oxytocin, gamma-aminobutyric acid [GABA], and nitric oxide) playing secondary roles [33].

Hyperprolactinemia has been associated with both decreased sexual desire and a decreased ability to reach orgasm in males. Reportedly, the intensity of orgasm correlates with the ejaculatory volume; thus, declines in ejaculatory volume can result in reduced sexual pleasure. Because ejaculate volume is androgen-dependent, it tends to decrease with age, and this decrease may result in a blunted orgasm experience in the elderly. The increased frequency of delayed ejaculation in men older than 50 years may be associated with age-related loss of fast-conducting peripheral sensory nerves, as well as with age-related reduction in the secretion of sex steroids.

Prevalence of delayed ejaculation is estimated between 1 and 4% of males. Because there is no widely accepted precise definition of the condition, the true prevalence of delayed ejaculation is not well defined. The incidence of delayed ejaculation begins to increase after the age of 50 years. Compared with men younger than 59 years, men in their 80s report twice as much difficulty in ejaculating [6].

11.5.2 Pathophysiology

The evaluation of this condition requires a focused history and physical, which includes a detailed sexual history, examination of the genitalia, and inquiry into the status of the partner. A sexual history should be elicited. In many cases, there is a pattern of long-continued thrusting in an effort to achieve orgasm, which is maintained until the man becomes exhausted or experiences genital discomfort, eventually discontinuing his efforts. A repetitive pattern of difficulty in ejaculating may lead a man to avoid sexual activity altogether. In addition, this ejaculatory difficulty may lead some sexual partners to report feeling less sexually attractive. Psychological factors (e.g. a history of trauma, severe guilt, a fear of impregnation, or hostility towards a woman) have all been associated with primary inhibited male orgasm. Severe forms of major depressive disorder may also be linked with an increased frequency of delayed ejaculation. A history of injury or surgery

may be highly relevant. Ejaculatory dysfunction has been reported in about 40% of patients with bilateral sympathectomy at the L2 level. High bilateral retroperitoneal lymphadenectomy can cause an even higher percentage of emission failures. Dysfunction of the internal sphincter or the bladder neck (e.g. post prostatectomy) following alpha-blocker therapy or autonomic neuropathy due to diabetes can result in retrograde ejaculation. A careful history of alcohol and illicit drug use is mandatory. Marijuana, methylenedioxy-*N*-methylamphetamine (MDMA), most commonly known under the street name of Ecstasy, and alcohol use were clearly associated with delayed orgasm and anorgasmia. The following classes of prescribed medications should be considered in the differential diagnosis: alpha-adrenergic blockers (prazosin and terazosin (retrograde ejaculation)), combined alpha- and beta-adrenergic blockers (labetalol) (inhibited ejaculation), sympathetic nerve blockers (guanethidine (erectile dysfunction and retrograde ejaculation)), tricyclic antidepressants (via increased serotonin) (amitriptyline, desipramine, doxepin, imipramine, maprotiline, nortriptyline, protriptyline (inhibited ejaculation); clomipramine was reported to induce anorgasmia within days of starting treatment, which persisted with minimal tolerance over 5 months of clomipramine therapy), monoamine oxidase inhibitors (via increased serotonin) (isocarboxazid, phenelzine, and tranylcypromine (inhibited ejaculation and decreased libido)), selective serotonin reuptake inhibitors (via increased serotonin) (fluoxetine (anorgasmia in 8–30%) and paroxetine (anorgasmia)), other antidepressants (venlafaxine (anorgasmia)), and antipsychotics (mainly via increased prolactin and serotoninergic activity) (first generation or typical (haloperidol, thiothixene, perphenazine, and trifluoperazine) and second generation (risperidone) (inhibited ejaculation, decreased libido)) (see also Chap. 24 for a review on psychotropic medication-related sexual dysfunction).

11.5.3 Clinical Management

Laboratory tests are aimed at the detection of abnormalities in the blood count, glucose level, hormone levels, or kidney function. If a correctable aetiology is discovered, treatment is directed towards the reversal of this condition.

DE is not easy to treat because it is poorly understood. Treatment should be aetiology specific and may include patient and their partner *psychosexual therapy*, *drug therapy*, or *integrated treatment*. Drug treatment of DE includes many agents with varying degrees of success. Currently, no drug has been approved by FDA or EMA for DE. A variety of drugs are identified for potential use in this condition. These drugs include testosterone, cabergoline, bupropion, amantadine, cyproheptadine, imipramine, yohimbine, bethanechol, buspirone, and others. However, no drugs have been approved by regulatory agencies for this indication.

In the case of antidepressant-induced inhibited male orgasm, consideration may be given to switching to bupropion (also used as adjunctive therapy), mirtazapine, or trazodone, which has fewer sexual side effects than selective serotonin reuptake inhibitors (SSRIs) do.

Several psychological dimensions have been found to be associated to DE. Despite having no difficulties in attaining or maintaining erections, men with DE tend to report low levels of subjective sexual arousal and pleasure [34]. Moreover, these men report high levels of relationship distress, sexual dissatisfaction, anxiety about their sexual performance, and lower frequencies of intercourse compared to sexually healthy men [35]. Moreover, fear of impregnating his partner or transferring sexually transmitted infections and inadequate physical stimulation are common factors found in men with DE [36]. Men's anger towards his partner has also been found in men with DE [36]. Also, historical factors such as traumatic or unpleasant past sexual experiences can contribute to anorgasmia: also, negative cognitions about sex and strict or rigid religious or moral background and unusual masturbation patterns are usually predisposing factors for the development of DE.

Regarding psychological treatments, men suffering from DE may benefit from different approaches including *sex education*, *reduction of goal oriented anxiety*, increased and more *genitally focused stimulation*, and *sensate focus*. Self-stimulation techniques incorporating fantasy are an important aspect of therapy, helping men increase sexual arousal and pleasure during sexual activity. Additionally, an important component in the treatment is the removal of "demand" or performance anxiety during sexual activity which benefits from sensate focus exercises as well as cognitive restructuring [37]. When major relationship problems are present, couples or marital therapy might be indicated.

Despite the clinical and expert opinion support for the use of this range of treatment techniques for DE, there are few randomized controlled trial studies investigating the efficacy of the existing psychological interventions [38].

Anecdotal reports suggest that an *electro-vibrator* applied at the lower surface of the glans penis can be an effective intervention in cases of primary male anorgasmia [38].

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Counselling and Psychotherapy in Sexual Medicine

12

Francesca Tripodi

12.1 Introduction

12.1.1 Requirements and Aim of the Different Clinical Interventions

Counselling and psychotherapy are core interventions in sexual medicine when a specialist wants to treat the sexual complaints of his/her patients.

These services should be provided by clinicians with a recognized professional qualification in behavioral or clinical sciences, including psychology or psychiatry, and postgraduate education in sexual counselling and/or sexual psychotherapy. Specific skills in this field are particularly important when the client has a mental disorder.

Counselling applies to the provision of advice and guidance in personal, biological, psychological, and social aspects of sexual life. The aim is to help patients to increase opportunities to find fulfillment and make meaning from sexuality, in ways that are positively enriching and that enhance personality, communication, and love. The role of the counsellor is essentially to prepare the patient's choice to change. In this sense, the clinician should:

- Join with the patient's view of the problem
- Use the client's language system to address matters instead of diagnostic categories
- Bring hope and expectancy for beneficial change
- Consider the client's stage of readiness for action
- Evaluate the potential costs and benefits of changing or remaining the same

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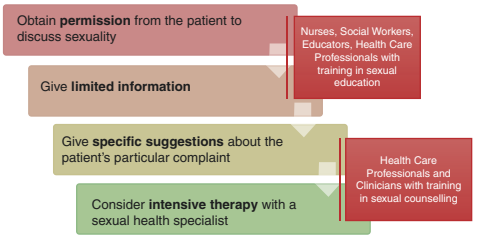
It is always a good strategy for educators and counsellors to follow the classic PLISSIT model or the revised BATHE-RS model (Fig. 12.1). These models offer a basic structure for the provision of sexual health services. PLISSIT model has four levels of increasing intervention and interaction related to what kind of and how much help is given to a client. The varying levels largely revolve around what the client is looking for and how comfortable they are in discussing sexuality and sexual health:

- *P—Permission* to talk about sexuality and sexual issues; empathy and encouragement; empowerment to make choices about sexual changes. The healthcare provider, in acting as a receptive, non-judgmental listening partner, allows the client to discuss matters that would otherwise be too embarrassing for the individual to discuss. This level of the model seems well-suited to the wondering and reflection stages of change.
- *LI—Limited Information*; sex education; exploration and clarification of gender and sexual myths and stereotypes; information about prevalence and etiology of problems as appropriate. This level corresponds to the reflection and preparation stages of change.
- *SS—Specific Suggestions*; particular interventions, including medical, psychological, and relational factors unique to the case; providing contexts of choice and respect for cultural considerations. The sexologist gives the client suggestions related to the specific situations and assignments to do in order to help the client fix the problem. This level of the model addresses the needs of the preparation and action stages of change.
- *IT—Intensive Therapy*; ongoing engagement of the patient/couple in systematic individual and conjoint services focusing on relationship dynamics, psychological concerns, and complex presenting problems. This level recognizes the need for in-depth sexual health services to promote maintenance of treatment gains. Intensive Therapy should only be performed by clinicians whose licenses or specialized training demonstrates advanced competency in sex therapy or supervision.



P	B	Background	B: Can you tell me more about this?
	A	Affect	A: How has this been affecting you (your life, your mood, relationship)?
	T	Trouble	T: What about this is most troubling?
	H	Handling	H: How have you been handing this?
	E	Empathy	E: Do not forget to express empathy
LI	R	Response	General education
SS		Response	More specific education
IT		Response	Referral to another health care professional
	S	(Re)Screening	Rescreen, assess outcomes at future visits

Fig. 12.1 The PLISSIT and BATHE-RS models. Adapted from Annon (1976) and McLeod & Hamilton (2013) [1, 2]

Psychotherapy applies to the appropriate evaluation and psychotherapeutic treatment of sexual disorders. The specialist in sexual therapy, in addition to the skills of the sexual counsellor, is able to implement an integrated clinical intervention for a change that allows the improvement of sexual health. The final goal is not the re-establishment of patient's health status, unreachable in many conditions, but the improvement of personal satisfaction and quality of life. This could often coincide, but not necessary, with the cure of the disease. With a patient-centered focus, clinicians should be able to understand the specific needs of the individual/couple. It requires not to be rigid in a strict model but to be open and able to take into account a complex system of interplaying variables [3].

The integrated/combined approach is essential in this field. This means having in mind the bio-psycho-social model (multifactor levels on assessment, diagnosis, and treatment of sexual problems) [4], developing an integration between psychotherapeutic theories and techniques, working in a multidisciplinary team, and using all available resources—medical, pharmacological, psychological, relational, and psychosexual. Working in teams needs the development of some skills, such as communication between different professionals, who are speaking in different technical languages. Medical and psychological knowledge is often difficult to integrate, and this process costs efforts from both parts but reports a better impact on patients' outcomes [3, 5].

Today's psychosexual therapy comprises cognitive-behavioral, systems/couple, and psychodynamic interventions [6, 7]. These are often integrated with medical therapy, thus providing care through a bio-psycho-social perspective. Pharmacological therapy in combination with psychological therapy can be useful in obtaining results that boost patient self-confidence and help psychological treatment progress.

Psychosexual therapy employs many of the basic principles as other therapeutic modalities used in mental health. Still, it is unique in that it is an approach developed specifically for the treatment of sexual problems. That is, sex therapy is a specialized form of treatment focusing on one aspect of the wide range of human problems. Herein lie its value and its limitation. Sex therapy techniques, when applied by an untrained therapist, might focus too much on mechanical sexual behavior, to the exclusion of the total individual and the total relationship. As Leiblum noted, "sex therapy is not a 'cookbook' exercise of interventions for each specific disorder. Instead, it represents a unique alchemy of the patient, the couple, and the therapist, influenced by 'chance events', client motivation, contextual components, and favourable timing" [8].

Success of sexual therapy depends on a number of conditions, traditionally listed as the availability of a stable and cooperative partner, ability of both patient and partner to change attitudes toward sexual activity, a level of education sufficient to understand the causes of the problem and the objectives sought by treatment, and absence of a severe underlying psychopathology in both. A modern approach to sexual dysfunctions includes a variety of relational status and health conditions which,

although not yet well addressed in the majority of the training program for sexologists, is already highlighted in many recent literature contributions: single patients, widowers, open relationships, individuals with atypical sexual preferences, patients with chronic diseases and cancer, disabled, and obviously psychiatric patients. We all must change the attitudes toward these populations and our inner stereotype that sex (and therefore sexual therapy) is for the young- beautiful-healthy-typical-heterosexual coupled people. Not delivering sexual therapy to mentally ill people is a kind of stigmatization made by professionals and stands against the Declaration of Sexual Rights (see Chap. 3 for details). Of course, sexual therapy should be undertaken when patients are in a stable mental condition (not, e.g., in acute psychosis or mania) and if the sexual problem is not a direct consequence of the psychopathology (in that case, treatment should be cause-oriented first).

Awareness of diversity is also vital when working as a counsellor and/or psychotherapist. The specialist must have the capacity to see beyond her/his own sociocultural and psychosexual experiences and to present an objective and clean approach to their practice. Attitudes vary considerably, and the specialist must be prepared to consider how different belief systems and experiences might influence sexual values and norms, relationships and family systems, differences in personal values, seeking professional services, and concepts as disability and dysfunction.

Sexual counselling and psychotherapy could be seen as two separate interventions, performed by different professionals, or as a continuum, in which the clinical process is managed by a single clinician, who will be the "case leader" within the multidisciplinary team. The practice involves a holistic approach first to the assessment, interpretation, and analysis of findings and diagnosis and second to the planning, implementation, and evaluation of appropriate interventions in the management of sexual problems and dysfunction. Moreover, it is expected that the professional will work in partnership with the client in undertaking assessment and that the needs of the client are considered. Key issues include:

- Gaining client informed consent
- Conducting a systematic, safe, and efficient assessment in accordance with accepted procedures
- Maintaining professional and unbiased specialist/client relationships
- Being respectful and sensitive to individual differences and adjusting communication to meet cultural and orientation safety
- Identifying where further consultation by other specialists is indicated

The services provided will be determined by a range of factors, including the profile of the client and the setting and the nature of presenting concerns or problems. (See Chaps. 2 and 4 for more information on sexual diversity, transcultural context, and ethical issues in clinical sexology.)

12.1.2 Curriculum and Certifications in Clinical Sexology

Knowledge and competence, as a result of good training and professional expertise, should lead to greater flexibility in adopting a patient-centered approach. High quality and standard of performance ensures the effectiveness of practice and provides protection for those who seek services from professional sexologists. Therefore, attending a qualified course, getting supervision from experienced colleagues, working in a multidisciplinary team, and joining congresses in the field are all needed to become skilled clinicians in sexual counselling and therapy.

All over Europe, training and certifications in clinical sexology are delivered by private institutes, universities, or scientific associations, sometimes grouped at a national level to ensure the same curriculum (topics, hours of course, supervision, etc.) and quality of training. It is not possible to mention the different national training and certifications in this chapter, and the reader is referred to seek out what is offered at the national levels. One challenge is that the title of sexologist is not officially recognized as a psychotherapy specialty, and offered specializations may vary substantially both nationally and throughout Europe.

On the European level, two important initiatives have been implemented. For physicians, in 2011, the *European Society for Sexual Medicine* (ESSM) and the *Union Européenne des Médecins Spécialistes* (UEMS) established a *Multidisciplinary Joint Committee of Sexual Medicine* (MJCSM), with the primary purpose of establishing the highest possible standards of training in sexual medicine in Europe. In order to achieve this goal, a curriculum was developed, educational standards for training set up, and an assessment framework—including the development of an examination to become *Fellow of the European Committee of Sexual Medicine* (FECSM)—established [9, 10].

Since 2012, the pathways already open for the European accreditation of the sexual medicine specialty guided intense efforts of the ESSM and the *European Federation of Sexology* (EFS) to work together and share resources, in order to develop European training standards in psycho-sexology and produce high-quality multidisciplinary educational activities. Although this is with no doubt an ongoing challenge for both societies, the first steps have been implemented with the establishment of the qualification as *EFS and ESSM Certified Psycho-sexologist (ECPS)* and the implementation of educational activities and resources to support candidates preparing for the ECPS examination. The first ECPS exam took place in 2014, and since then it has been held every 2 years [11]. Currently, this title is a "mark of excellence" given by the most important European scientific societies to the professionals who meet the requirements and pass the exam; unfortunately, clinical sexology remains an unrecognized European specialty. Therefore, for psychologists willing to be trained in sexual therapy, the situation differs depending on the country of origin. At the moment, specializations in psychosexology are established and accredited by the Ministry of Health/Education only in a few European countries.

12.2 Guidelines on Management of the Clinical Process: Five-Step Algorithm

Previously, sexual dysfunctions (SDs) were considered organic, psychogenic, or mixed. Nowadays, there is a large consensus among experts that categorizing SDs in one of the three categories is often simplistic and superficial. The modern view suggests that all SDs are multifactorial and the result of ongoing interacting relationships among biological, cognitive, emotional and behavioral, contextual, and interpersonal contributing factors (Fig. 12.2). This is a major step in sexual medicine, as it contrasts with the biomedical model that suggests every disease process can be explained in terms of an underlying deviation from normal function [12]. We moved from the concept of linear causality to systemic approach. Consequently, a unimodal treatment algorithm that would exclusively prescribe a biomedical treatment for an organic sexual problem, a psycho-social treatment for a psychogenic dysfunction, and a social intervention (couples counselling, for instance) for a relationship problem, respectively, is to be considered an "old fashioned" approach.

Therefore, it is important for all clinicians to adopt a bio-psycho-social model that aims to synthesize rather than categorize etiologic and contributing factors and to provide comprehensive treatment that accounts for the biological, psychological, and social aspects of a SD.

The Fourth International Consultation on Sexual Medicine endorses an algorithm for diagnostic evaluation of SD in men and women, with specific recommendations for sexual history taking and diagnostic evaluation. Standardized scales, checklists, and validated questionnaires are additional adjuncts that should be used routinely in sexual problem evaluation [12].

This algorithm consists of five sequential steps for healthcare providers (Fig. 12.3). In this section, we will go through it suggesting some useful tips.

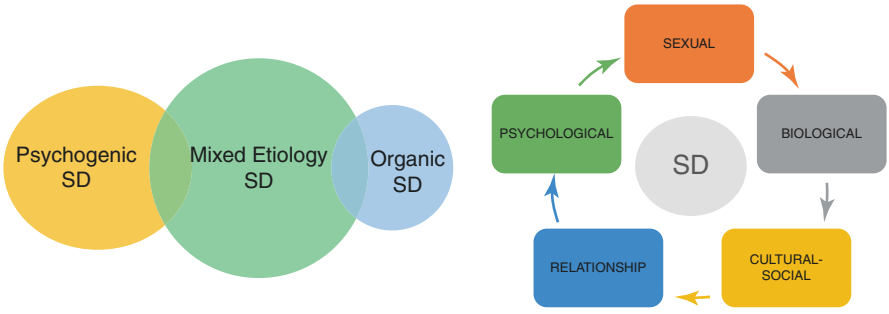


Fig. 12.2 Traditional vs current view on etiology of SD. Adapted from Hatzichristou et al. (2016) [12]

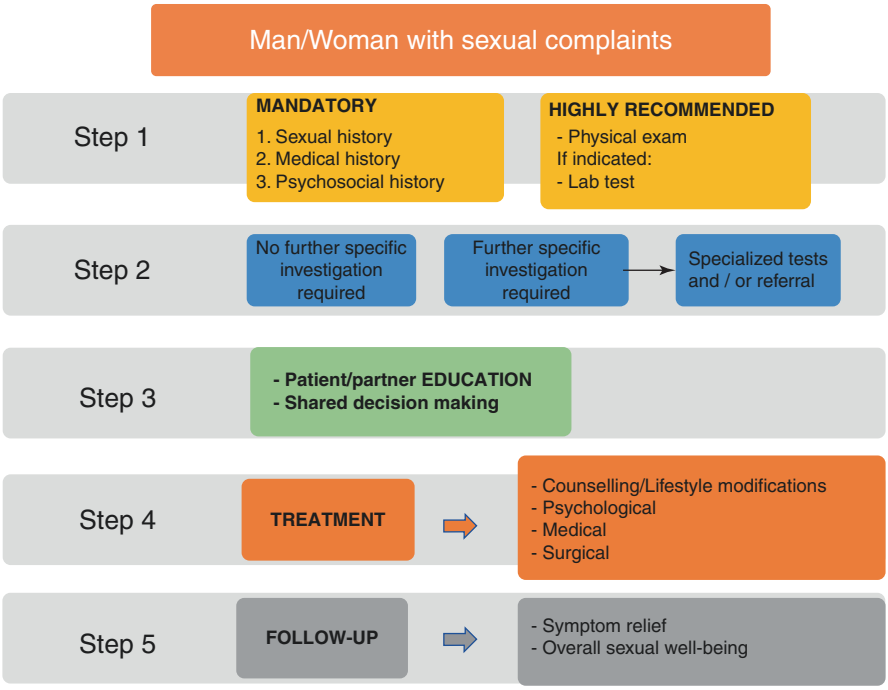


Fig. 12.3 The revised ICSM five-step algorithm for the management of sexual dysfunctions in men and women. Adapted from Hatzichristou et al. (2016) [12]

12.2.1 Step One

This step is the basic evaluation of all men and women presenting with sexual complaints. It includes a mandatory procedure: the patient history. This in turn involves components of the sexual, medical, and psycho-social history. Although most healthcare providers are familiar with taking a medical and psycho-social history, this might not be the case when taking an appropriate sexual history, because it is often not part of their training and education. Sexual history taking should always be conducted in a culturally sensitive manner, taking into account the individual's background and lifestyle, status of a partnered relationship, and the clinician's comfort and experience with the topic [13]. Specifically, the sexual history aims to identify sexual problems, possible biological and psycho-social contributing factors, and the patient's and/or couple's treatment goals. While exploring the presenting problem, the clinician should also:

- Take note of information relevant to secondary gain
- Identify the potential risk of treatment, including understanding the client's value system, level of concern, and cognition sensibilities/embarrassment

- Observe relational dynamics within the couple
- Define and acknowledge differences between partners' goals, priorities, and expectations

All healthcare providers dealing with sexual problems need to be able to assess and interpret the relevant personal data reported in this step. Beyond history taking, a focused physical examination is strongly recommended, although not mandatory. Of course, psychologists are not allowed to perform it, but only physicians, better if specialists in urology, gynecology, or sexual medicine. This can serve as an opportunity to identify possible contributing factors or comorbid conditions and/or an opportunity to reassure the patient of the absence of anatomical problems. In addition, laboratory tests are recommended only when there are indications of organic pathology or general medical conditions that are potentially affecting sexual function. (See also Chap. 9 for more information on sexual interview.)

12.2.2 Step Two

At this stage, the specialist needs to determine whether further specific investigation or referral is required. After collecting all the relevant information, outcomes from psychometric tools, lab tests, or other consultations, if any, the case leader should communicate with the healthcare providers who are already treating the patient for other problems that impact sexuality and with the other professionals of his/her networking that could help for further steps. The aim is to confirm the diagnosis and evaluate what the best options are for the client/couple. A useful schema to adopt for a comprehensive view of all the factors involved in the SD is shown in Fig. 12.4. This simple matrix crosses the important aspects of the problem at different levels, facilitates understanding among professionals from different disciplines, and allows meaningful connections between the patient's life history and presenting complaints to be made [14, 15]. The schema functions also as a guide for which component of the SD will be harder/easier to face with treatment and what

	Predisposing	Precipitating	Maintaining	Contextual
Biological				
Intrapsychic & Relational				
Social & Cultural				

Fig. 12.4 Matrix on comprehensive diagnostic hypothesis. Adapted from an idea by Prof. Johannes Bitzer

reasonable expectations for the therapy to be successful might be. (See Chaps. 10 and 11 for more information on the clinical assessment of sexual dysfunction.)

12.2.3 Step Three

At this stage, and after all assessments are complete, the patient and/or couple should be given information and education on the sexual problem identified and on the contributing factors and available treatment methods. Clinicians should be aware that a significant amount of sexual complaints could be solved "only" with patient/partner education. Generally, the relevant topics here are anatomy of the genitals, physiology of sexual response, sexual scripts and wrong beliefs, myths on performance, normality in variety of orientation or preferences, and simple exercises or devices that can help in experiencing body function and pleasure. If this is not enough, the healthcare provider ideally should engage in shared decision-making with the patient or couple to agree on the most appropriate approach or treatment method. The clinician needs to provide the patient with the necessary evidence-based information, clarify the patient's needs and preferences, and together select among the available treatment options.

It is advisable to show the matrix (a comprehensible version) to the client in order to guide an understanding process of the variables involved and the reasons why some therapeutic options could be more successful than others. Also, the sequence of the different steps/goals of the treatment will be better understood. In this way, the specialist will support the motivation, compliance, therapeutic alliance, and realistic expectations of the patients. This is generally a good moment to ask the clients if something important to them was missed during the assessment and if they want to add some other elements that help the overall view of the problem.

A good hint in this phase is to draw Cartesian axes and fill the spaces together with the patients, according to their goals and the changes needed to achieve these goals (Fig. 12.5). The main points can be listed in the different areas of the graphic to better clarify the therapeutic pathway and the changes that are worth working on and those that are best left out. The result will be a real cooperation between client and clinicians, in which:

- The client's realistic goals, needs, and expectations are prioritized
- The client's cognitive and physical capacities for meeting realistic goals are recognized and accepted
- Cultural, social, religious, and legal issues that may impact meeting aspirations and needs are incorporated into intervention planning
- Areas of differences when each partner has realistic but incompatible needs and expectations are identified and shared
- The individual's or couples' disappointment or distress if goals are unrealistic or unachievable is addressed

The expert's competence and opinion orient the process and a tailored treatment. In most cases, the treatment zone is related to maintenance and contextual factors,

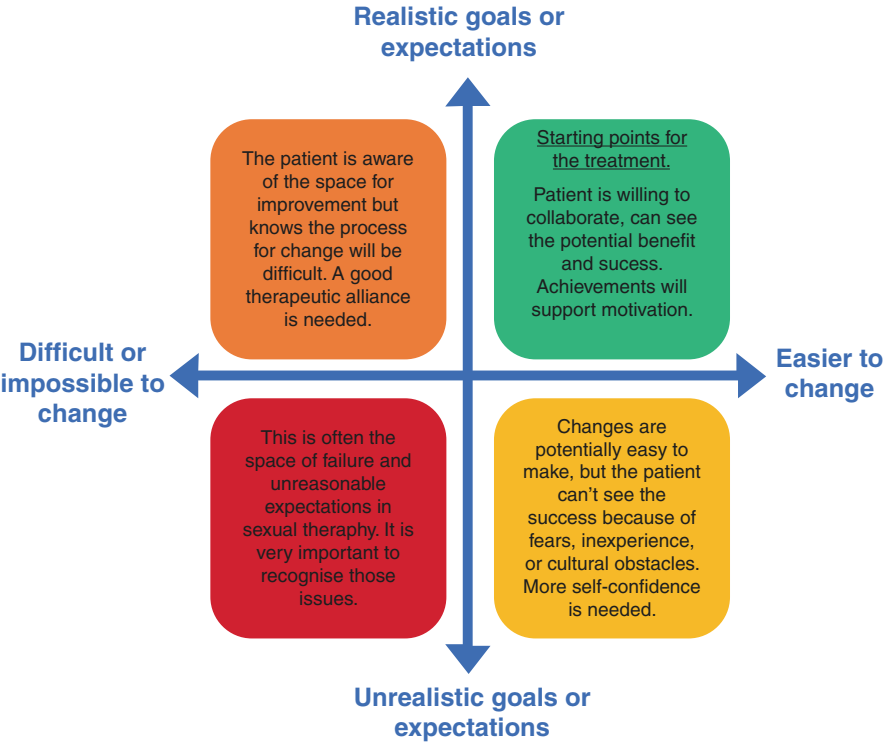


Fig. 12.5 Co-building the therapeutic goals

as the predisposing and precipitating ones are often difficult to change (constitutional and prior life experiences or traumas, personality traits, chronic illness, mental illness and medications, etc.).

12.2.4 Step Four

This stage refers to the therapeutic intervention, which can be one or a combination of the following: counselling and lifestyle modifications and psychological (psychotherapy, psychosexual therapy) and/or medical (pharmacotherapy, hormonal, devices, surgical) treatment. Sometimes, and certainly for a few sexual problems, pelvic floor physiotherapy, EMG biofeedback, transcutaneous electrical nerve stimulation, radiofrequency procedures, and shock wave therapy can be considered in this step.

Counselling (e.g., clarification, normalization, orientation, education, support in decision-making) and lifestyle modification (e.g., diet, exercise, free time, privacy, stop drug/alcohol consumption), as well as medical and surgical prescriptions will face the conscious, evident, concrete factors that maintain the SD. Generally, the patient/couple reach easily awareness on those aspects of the problem and show compliance on the targeted suggestions. Benefits can be reached in a linear way, if it is the right time for the patient. The clinician should ensure that the client(s) have

enough knowledge, skills, and insight for subsequent self-management, developing interventions that are evidenced based and appropriate for the assessment findings and the client's personal context.

Psychosexual therapy is needed when the factors at play are more intricate and/or belong to the blind area of the patient. For example, it is common to see people complaining of SDs with concurrent psychological symptoms to which they are unable to give an explanation. It is also common to see couples who declare no conflicts at all but great dissatisfaction for their sexual life. In complex cases, in which the SD is only one piece of a big puzzle of problems, psychotherapy could be the best treatment option. As mentioned above, clinical sexologists who perform psychosexual therapy should know different models and techniques, in order to apply the most appropriate intervention in the different phases of the therapeutic process [16].

Behavioral interventions The rationale of *behavioral intervention* is that negative emotional reactions to a certain stimulus are the result of certain behaviors, and therefore, in order to elicit positive emotional reactions, you need to modify maladaptive behaviors. A behavior that elicits positive emotions and rewards is likely to be continued and repeated, whereas behavior that elicits negative emotions is likely to be inhibited. For instance, when sexual arousal is associated with negative feelings of guilt, fear, shame, etc. during childhood or adolescence, it can result in learned inhibition of the sexual response. Then, masturbation may be poor or associated with negative thoughts about oneself or one's sexual fantasies (hence affecting cognitive appraisal about sexuality). As adults, these individuals can describe themselves as unsuitable for sex, not capable of sexual intercourse, feeling ridiculous in their sexual expressions, or can develop real dysfunctions.

Behavioral aspects of sex therapy mainly involve two broad types of interventions. One is through the prescription of *structured behavioral assignments* [16–19] that the patient does alone or with the partner in between sessions at home. Examples of these assignments are the following.

Sensate Focus

Sensate focus is a sexual assignment that is usually used in situations where performance anxiety is thought to be the core etiology of the male or female sexual dysfunction. It is often used as part of the treatment of psychogenic arousal and desire disorders of men and women. It includes a series of specific gradual steps of sexual behaviors to be performed by the patients in their own home. For dysfunctional patients, sexual intercourse elicits anxiety, which in turn maintains the sexual dysfunction, and often leads to avoidance of sexual activity. The sensate focus assignment aims to restore pleasure by initially replacing the behavior of sexual intercourse with other more safe and pleasurable sexual activities. For this reason, intercourse and breast and genital touching are initially prohibited, while the patients only sensually massage each other's bodies. As patients respond to these activities with feelings of calmness and pleasure, sexual activities are enriched with genital touching and gradually work up to full sexual intercourse.

Systemic Desensitization

Systemic desensitization is usually applied in cases where a phobic response to a sexual stimulus is evident. It is mainly used in the treatment of vaginismus as well as in those patients suffering from generalized fears of penetration. This intervention begins with teaching the patient relaxation skills. Subsequently, the therapist helps the patient to develop a hierarchy, listing the level of distress to various types of exposure to sexual situations. Beginning with the least distressing situation, the patients are encouraged to systematically expose themselves to that situation. At each step in the progression, the patients use relaxation skills. The fear gradually extinguishes by realizing that nothing bad is happening to them. An example of systemic desensitization for vaginismus is the following: The patient is asked to imagine her inserting a graded series of objects into the vagina. When she is no longer anxious about the imagined situation, she is asked to use real objects. One might start with the tip of a cotton bud or the tip of the patient's little finger, followed by the gradual insertion of two or more fingers, internal sanitary pads, and lubricated dilators (of gradually larger sizes) and eventually by the slow introduction of the penis, culminating with dynamic coital movement. It is important to note that the patient must move from one step to the other only when the previous step does no longer elicit an anxiety response.

Stop-Start Technique and Squeeze Technique

These are assignments that gradually help the patient learn to control ejaculation. These techniques are usually used as part of psychotherapy for premature ejaculation, when a lack of control skills is evident. Men with premature ejaculation typically fear focusing on their sexual excitement, because they believe it will cause them to ejaculate even more quickly. Thus, they usually attempt to limit their sexual excitement which, however, is unsuccessful in controlling ejaculation. These men typically fail to focus on arousal and are unable to perceive and linger in mid-range sexual excitement. These behavioral techniques are used in order to teach men to focus on their arousal and to identify intermediate levels of sexual excitement. Successively, beginning with masturbation and moving progressively through foreplay and intercourse, they learn to linger in this range, thereby delaying ejaculation.

Guided Stimulation Techniques

These are behavioral assignments that are often integrated in sex therapy for delayed ejaculation. In these patients, guided stimulation techniques aim at distracting the man from his excessive control and increasing the necessary

stimulation for achieving orgasm during partnered sexual activities generally and intercourse specifically. Guided stimulation helps the patient identify effective physical stimulation and, with the help of fantasies, increase subjective arousal. This technique is initially applied by the patient during the condition in which he has the capacity to achieve ejaculation (e.g., during masturbation in the absence of the partner). Gradually, the technique is applied hierarchically to planned intermediate steps until orgasm is possible in the partner's presence and, finally, during intercourse.

Directed Masturbation

Guided masturbation is a technique most frequently used in women with primary anorgasmia. The rationale is that many women experience orgasm for the first time through masturbation and that the proportion of women who are consistently orgasmic with masturbation is far greater than the proportion of those consistently orgasmic in sexual intercourse. This technique involves stages starting with general self-examination while naked, followed by genital self-examination, Kegel exercises, stimulation of genitals with fingers, and guided stimulation. Once the woman can achieve orgasm, she is encouraged to transfer this knowledge to her sexual relationship.

Mindfulness

Mindfulness techniques have recently been applied in sex therapy with promising results. Mindfulness helps the patient practice being fully aware of one's thoughts, emotions, and physical sensations in a nonjudgmental way. Although mindfulness is rooted in Eastern spiritual practices, it is rapidly being embraced in Western approaches to both physical and mental healthcare. Mindfulness in sex therapy focuses on one's attention during sexual activity and teaches patients to be fully present to the sensations of the sexual moment, without being judgmental. While patients are often "fighting" with negative thoughts, images, and emotions during sexual encounters, or otherwise try to suppress such thoughts, mindfulness teaches them to accept them and neglect them by simply refocusing their attention to their sensations. Mindfulness exercises have been used for sexual arousal and desire problems in women, but potentially these techniques may be used for other sexual disorders as well. Mindfulness practice usually starts in the non-sexual everyday life and subsequently during sexual activity. Currently, mindfulness is perceived not only as a set of techniques in the third wave of cognitive and behavioral therapy but as a standalone therapeutic method (mindfulness-based therapy—MBT).

Behavioral experiments aim to help the patient or couple identify, analyze, and experimentally modify behaviors that have a negative influence on sexual encounters [16]. This is less directive than the structured behavioral assignments. After identifying those behaviors (what they do, or do not do), partners are encouraged to think of alternative behaviors and, in an experimental way, try to replace their previous activities with potentially more useful ones. For example, a woman with low sexual desire needs to understand that sexual intercourse without motivation will only increase the negative sexual experiences. The patient is then encouraged to maintain only types of sexual activity that are pleasurable. This way, the patient will gradually increase pleasurable sexual experiences, which in turn are expected to facilitate more pleasurable behavioral change. In other cases, it may be useful for the patients to identify and try altering behaviors that are non-sexual in nature but have a profound impact on sexual encounters. Taking care of conditions that impact sexual encounters, such as sleep deprivation and childcare, must occur. For example, if sex occurs late at night, when both partners are physically and mentally fatigued, patients may be encouraged to experiment with making "dates" with each other for a more relaxing sexual context.

Cognitive interventions The rationale of *cognitive intervention* in sex therapy deals with what goes through one's mind when considering or faced with a sexual situation. These are automatic thoughts that pop up in one's head, without them being the result of deliberate thinking. These automatic thoughts arise from more enduring cognitive phenomena, such as beliefs. Throughout life, people develop certain beliefs about their own and other people's sexuality. Some of these beliefs are core beliefs in a sense that they are global, rigid, and generalized (e.g., "I am inadequate"), while other beliefs are more like assumptions or rules (e.g., "I must always be able to satisfy a woman, or else I'm a failure"). In the last 20 years, research (especially from Professor Nobre in Portugal) has identified several dysfunctional automatic thoughts and beliefs that distinguish sexually functional from dysfunctional individuals, as well as thoughts and beliefs that are associated with negative emotions during sexual activity and problematic sexual function. Cognitive interventions entail techniques for becoming more aware of our thoughts and for modifying them when they are distorted or not useful. This approach does not involve distorting reality in a positive direction or attempting to believe the unbelievable. Rather, it uses reason and evidence to replace distorted thought patterns with more accurate, believable, and functional ones.

Cognitive interventions have three basic steps:

1. *Identifying* the thoughts or beliefs that are influencing the disturbing emotion
2. *Evaluating* them for their accuracy and usefulness using logic and evidence
3. *Modifying* them to be more accurate and useful, if needed

This is best done as a collaborative process in which the client is assisted in taking the lead as much as possible. The therapist refrains from assuming that the patient's thoughts are distorted and instead attempts to guide the patient with questions that encourage his/her own discoveries. The therapist and patient question an erroneous explanation for events and arrive at a more reasonable and adaptive explanation. Patients are also encouraged to engage in this process on their own during their time between sessions by using exercises of written format and specialized worksheets.

In practice, cognitive modification is almost always combined with behavioral modification. This is done because the cognitive-behavioral theory sees cognitions, emotions, and behaviors as interrelated. So, changes in one of the three dimensions are expected to influence the other two. This is known as *cognitive-behavioral therapy (CBT).*

Systemic or relational interventions The rationale for *systemic or relational interventions* deals with the dynamic interplay between the two individuals involved in a sexual relationship. Each partner brings to the sexual interaction a set of experiences embedded in family therapy as well as the larger social system, and these experiences influence the meanings each individual ascribes to the behavior of the other partner. In addition, the sexual relationship occurs in the context of the general relationship. Therefore, non-sexual relationship problems may influence sexual functioning. Clinically, it has been observed that sexual problems are sometimes the cause and sometimes the result of dysfunctional or unsatisfactory relationships. Relationship conflicts may be a primary source of sexual difficulty or may serve to exacerbate or maintain the sexual dysfunction [20, 21].

Couples therapy is often integrated in sex therapy and addresses the issues related to the couple's relationship. However, when a couple has salient relationship problems, then these should be the focus before treating the sexual problem. Some of the systemic concepts used as tools in therapy are the following [8, 22–24].

Personal Growth and "Differentiation"
Self-differentiation is a progressive, internal interplay between autonomy (separation) and connection (togetherness). Differentiation-based Crucible Therapy focuses on helping one change his/her relationships by growing and changing personally and by being less emotionally "fused," rather than trying to get more "attached."

Interdependence
Because the components of a system are interrelated, the behavior of each component affects all other components. This notion may be especially useful in understanding couples' resistance to changing their problematic behavior in response to sex therapy. For example, although erectile failure may be viewed as a problem for the couple, it also may help to maintain a balance of power between the partners.

Feedback Loops
Circular process in which input is transformed by the system into output and the output is brought back to the system as input. Negative feedback loops

serve to maintain the state of the system within certain limits. When the system is disturbed by internal or external sources, the system acts to bring itself back to its prior state.

Discovering How Systems Change
Process of discovering and describing changes within systems. These changes can occur in a variety of ways: learning, growth, significant change by one individual, and positive feedback loops. Systems theory emphasizes change as a process of an entire system, not by just an individual member.

Communication Skills
Partners are taught efficient ways to communicate. This is not about just talking, but about being understood. In this case, individual beliefs and thoughts that hinder communication may also be analyzed, e.g., "he never listens; he won't ever understand."

Cognitive Distortions
They may be identified within couples and challenged for their accuracy. Examples of some common ones are the following: a man whose wife has less sexual desire may think, "She must be having an affair"; a woman whose husband delays to seek treatment for erectile dysfunction assumes "He doesn't care about me"; a woman says that their sexual encounter was not as satisfying this time, and the husband thinks "She hated it."

Contingency Contracting
Helps to implement an exchange of positive reinforcers. One way to do this is to negotiate so that both partners agree to change behaviors that are sources of conflict for the couple. Another way is with good faith contracts. The partners agree to reinforce each other in a specified manner for desired responses.

Psychodynamic interventions The rationale for *psychodynamic interventions* lays in the perspective that SDs are symptoms that express a dysfunctional process in personality development [25]. This therapy draws in-depth explanations claiming that deep-rooted conflicts of unconscious fears or fantasies (such as incest, castration, loss of control, sperm loss, etc.) play a key role in the development of sexual dysfunctions. These fears are thought to be the product of incomplete psychosexual development and are expressed through the sexual dysfunction. The majority of these concepts are hardly amenable to empirical verification [8].

In psychodynamic psychotherapy, the emphasis is not on symptom removal, but on working through conflicts that are believed to have led to the symptom. The symbolic content and functional utility of the symptom are explored. It is prominent here to explore emotions and aspects of the self which are not fully understood, but

which find expression in recurrent maladaptive behaviors and symptoms, particularly in intimate relationships. The other features include examining and reclaiming memories of early childhood experience in relationships; interpreting and working through resistance to change in therapy; gaining access to unknown, repressed, or denied emotions; and attending to the transference and countertransference aspects of the therapeutic relationship.

12.2.5 Step Five

This stage refers to the patient's follow-up to assess symptom relief and overall sexual well-being. Follow-up can be continued at predefined intervals to assess whether the patient's and/or partner's needs are being met in the long term. Client responsibility for self-evaluation is encouraged, and appropriate tools and outcome measures are defined. Commonly, a good timeframe is set at 1, 3, and 6 months. Many clinicians are happy when their patients do not seek follow-up appointments. This is understandable: it is nice to think that they do not need our help anymore because they are just fine, and everything is going in a desirable manner. However, other reasons for not following up could be:

- Too busy agenda for follow-up.
- I'm ashamed to ask.
- They will refuse a follow-up.
- Can I ask for money for a follow-up?
- If they need something, they will come back.
- And what if the problem appeared again? I do not know how to move forward.
- I'm sure they will bring other issues and this therapy will be endless.
- Thank God I finished with him/her/them!

All of us know these reasons. Nevertheless, it will be a big mistake not to follow-up with our patients. First of all, we will never know if our interventions are effective, and this ignorance will leave us doing the same things all the time. Moreover, we will not compare what to us seemed like achievements for that patient/couple and what those really are in their opinion; this is actually what really counts. Second, follow-up sessions lead to better results in the treatment process. In fact, even when the sexual function is restored, patients may want to discuss a few other issues connected to their sexual satisfaction or well-being. Actually these "late adjustments" help in maintaining the treatment results and to avoid relapses. Third, patients are our best business card, and as such their health and quality of life is our greatest investment in clinical practice. Last, but not least, we will learn from our patients what is often not written in the books, but gives us the opportunity to improve our competence in writing papers, give expert opinions, manage difficult cases, or teach other professionals. So, never forget to set the next appointment and engage the patient/s to be of help for our expertise.

12.3 Clinical Approach with Psychiatric Patients

12.3.1 General Considerations

Sexual dysfunctions are prevalent among psychiatric patients and may be related, as already well noted in this volume, to the psychopathology, social stigma, and the side effects of pharmacotherapy (see Chapters from 13–24 for more information). The changes can appear separately or diffusely in all phases of the sexual response. Even today, the prevalence of sexual dysfunction is underestimated by psychiatrists, and spontaneous complaints from patients are uncommon. Still there are barriers for the assessment of sexual function, as both the patient and physician may be reluctant to initiate a conversation about sexuality. Patients hesitate to talk openly about sexual problems, because of the personal nature of sexual behavior, cultural factors, do not like to disclose intimate matters, feel afraid of finding themselves in an embarrassing situation, expect little help from their doctors in this matter, or even do not regard the topic as important. Studies on psychiatric populations have highlighted that very high rates of SD are noted when patients are directly questioned or when sexual questionnaires were used. These results clearly indicate the need for directly questioning patients concerning the presence of SD [26].

Broadly speaking, the specialist's goal is to maintain, restore, or improve a patient's quality of life, and sexual function should be a routine part of that clinical mandate. Psychiatrists and psychotherapists should know that the onset of a SD or the worsening of an existing sexual problem reduces pharmacological treatment compliance; moreover, many sexual symptoms resolve as the mental state improves, but treatment-related sexual adverse events tend to persist over time and are unfortunately under-recognized. Nevertheless, specialists often omit sexual issues due to the influence of various misleading *myths about sex and mental disorders*:

- Individuals with depression and schizophrenia do not care about sex.
- Psychiatric patients cannot manage their sexuality.
- Discussing these issues might trigger inappropriate behavior.
- If sex (and dysfunction) is important for the patient, he/she will refer to it spontaneously.
- Whatever the dysfunction, the patient will continue to use the medication.
- All drugs are similar in terms of sexual adverse effects.

In the majority of cases, sexual issues are not assessed because of lack of training in this area, poor clinical experience, narrow approach on patient's needs, and personal sexual beliefs and values of the clinician. Sometimes, the healthcare professionals can present subtle fears of personal or patient sexual arousal while talking about sex.

A good strategy to overcome barriers managing SDs in psychiatric patients is a *strong collaboration between the psychiatrist and the psycho-sexologist*. Each clinician can apply a *holistic evaluation* of the patient/couple by his/her own area of expertise, and then they can together build a *tailored treatment plan*. It means that

both of them are involved in the case at the same level (and patients should know that) and will keep working as a team until the patient reaches sexual well-being. Modern developments in psychiatry include recognition of the beneficial effects of a healthy sexual life in patients with severe mental disorders [26, 27].

12.3.2 Key Points in the Process

What already is described in the *Five Steps* is a useful pathway also when dealing with psychiatric patients, but of course there are specifics regarding the management of this population of clients. Patients can bring sexual problems to psychiatrists just presenting as a main sexual complaint or its emergence during therapy for another problem. These concerns fall generally into three categories:

- Sexual identity, e.g., cross-dressing, anxiety about sexual orientation, or unbearable sexual fantasies
- Sexual dysfunctions, e.g., new difficulty attaining orgasm, aversion to intercourse, painful intercourse, premature ejaculation, erectile dysfunction, or inability to ejaculate with a partner
- Partners' difficulty in managing their sexual life (e.g., desire discrepancy, cessation of sex, infidelity, partner's use of Internet pornography)

Another possibility is derived from the clash of a person's sexual behavior with social values or laws. Judges, lawyers, state boards, clergy, or other physicians may ask for psychiatric assistance with those who are accused of sex crimes, who crossed sexual boundaries at work, or who have been sexually harassed, stalked, or otherwise victimized.

A useful view when listening to a patient's story is that the sexual problem serves as a window into personal development and individual and relationship psychology. Sex can be understood to be about the unfolding of the individual self, the capacity to give and receive pleasure, the capacity to love and to be loved, the ability to be psychologically intimate, and the ability to manage expected and unexpected changes throughout adulthood.

Assessment and sexual history taking Clinicians must determine whether the SD preceded the mental disorder and whether it is related to the disorder, the treatment, or comorbidity with other psychiatric and physical diseases. Moreover, they must monitor the dysfunction in the course of treatment and explore lifelong sexual functioning and compare it with the current condition. First, reliable diagnostics should be provided differentiating the cause of the dysfunction together with the patient's medical history and attention to risk factors and also evaluate basic laboratory tests results. The sexual history should include educational factors and sexual attitudes; current sexual relations, including frequency, aversive stimuli, sexual thoughts and fantasies, sexual beliefs, and associated SD; problems arising from the attitude of the sexual partner and the partner relationship itself; and history of the specific sexual problem [28]. Additional descriptors such as former or current interpersonal

relationships, cultural and religious restrictions, partner's sexual dysfunctions, inadequate stimulation, dissatisfaction in sexual and emotional contexts, and negative upbringing/losses/trauma (physical, sexual, emotional) are also relevant (see Chap. 9 for more information on sexual interview).

Although all phases of the sexual response can be affected by the psychopathology itself and the use of pharmacotherapy (therefore a careful evaluation of whole sexual function is appropriate), there are some specific associations clinicians could expect when exploring sexuality in patients with particular mental disorders (see Chaps. 13–24).

Education and counselling The role of sexual education for psychiatric patients is the same as for other clinical populations asking for help for sexual health issues. It may be more important for those who had limited access to information and healthcare services, low level of school education, rigid or stereotyped culture in the family of origin, and weird or very misleading rules concerning boundaries, body safety, and trust and intimacy during development. As already said, some lifestyle changes, such as smoking or substance abuse cessation, exercise, and weight loss may contribute to the improvement of sexual function, and they should always be suggested to psychiatric patients who want to improve their sexual response. There is evidence that exercise improves genital arousal in women taking antidepressants similar to women not taking them at all [29]. Seeking counselling and support after a traumatic or disturbing experience, to prevent mood and anxiety disorders, can be beneficial for sexual function as well.

Psychosexual therapy Sexual rights are of importance for psychiatric patients as for all the others. Adequate sexual expression can improve overall well-being, restore confidence and dignity, and allow patients to overcome problems such as social disengagement and stigma. While the psychosexual therapy needs a properly trained and certified therapist, when it is provided to patients with severe mental disorders (such as schizophrenia or bipolar disorder), the latter should also have at least some expertise in clinical psychiatry or psychotherapy and optimally be supported by a professional supervisor.

Even if it is not always the case with these patients, the therapist could face cognitive and affective impairments, rigid defense mechanisms, immaturity, seductions, critics to his/her way of doing/thinking, provocative behaviors, sexual wishes and preferences that are unusual or clearly deviant, legal issues, and stories of traumatic and painful experiences, all that may test his/her emotional and professional balance, so an appropriate professional preparation is needed. But it is also true that success with complex cases, rated in terms of better quality of life and satisfaction by the patients, is much more rewarding and meaningful.

First of all, we need the exact diagnosis, in terms of *psychopathology* and *comorbidities*, relational and social patterns, and organic diseases. To approach psychosexual therapy, the patient should be able to understand and give consent and to agree that the *compliance with psychiatric therapy* is essential to get results. We need to make it clear that we are willing to work for his/her sexual well-being, but we (patient and specialists' team) have to consider all the issues connected with the mental health, sexual development, and personality traits of the patient.

Treatment should be individualized according to the patient's psychopathology, prescribed medicines, interpersonal relationships, and her/his expectations and situation. Therefore, it will not be that easy, and fast improvements of the SD might not be possible. Sometimes, the drugs that adversely affect sexual functioning must be taken continuously, and the psychiatrist and psycho-sexologist have to support each other's contribution when educating the patient and the partner to treatment options. Maybe the resolution of the sexual symptom is impossible in that given time, and sexual therapy can help in finding new ways for intimacy and sexual satisfaction. In this way, we start to build an alliance that is based on realistic hopes and a willingness to cooperate on both sides. The patients should accept that symptoms are interconnected and that the way they approach reality and relationships has a strong impact on their sexual life.

Our task is to find meaningful connections (between personal history, mental disorder and side effects of medications, and sexual symptoms) and return them in an understandable way to the patients. It does not matter how much time it takes to have a clear picture of the all factors involved. What is important is to share the map of what we are observing with the patient, and when we are in the same territory, then we can start working for symptom relief. During this process of mutual knowledge, in which we support the patient to disclosure him/herself and he/she learns to trust us, we can even start with some prescriptions or sexual exercises (PDE-5i, lubricants, diaries, reading, self-touch, masturbation, etc.) accompanying the problem-solving for specific situations, or enriching self-confidence and development of the sexual response. Successes in this phase are achieved if we find the right balance in triggering the patients to go beyond some defenses, but at the same time we are careful not to expose them to frustrating experiences.

Relational issues are also determinant in improving the patient's sexual functioning, because deterioration in social and interpersonal relationships is involved in the occurrence and maintenance of SD. This is true in each psychiatric condition, but becomes particularly complex for patients with personality disorders in cluster B (borderline, histrionic, narcissistic): these people can be very motivated in solving their sexual difficulties, but are generally less able to see their own dysfunctional patterns when engaging in a relationship and to manage their own emotions. Involving the partner, if any, in some sessions allows us to better understand the situation and to ask for active collaboration. The partner's motivation in increasing sexual satisfaction as well as his/her attitude to the patient (neither hostile nor solicitous, but facilitative and encouraging) is essential to get some success. We should educate the partner on the impact of the psychiatric disease on sexuality and try to solve each misunderstanding about the desire for intimacy within the couple. Other examples of relational issues are the loneliness and isolation many patients with psychiatric disorders experience. So, they may not have a classical sexual dysfunction, but struggle with how to find a partner and how to be intimate with another person. In these cases, talking to a psychiatrist or psychologist may be of good help.

Approaches that aim to decrease *anxiety* associated with medication or sexual performance, change in *attitudes toward sex*, better *communication with the partner*, and training in *sexual skills* can provide significant help to cope with SD, even

if the SD was iatrogenic and avoidance behavior reinforced it. *Relaxation* is an alternative type of psychological treatment. It focuses on relaxing the body in a particular way during situations that usually cause anxiety. The technique needs to be taught by a trained therapist, but it involves learning awareness about tension, how to relax the muscles in general, and as a response to a trigger, such as the word "relax," and applying such practice for the sexual context.

Choice and management of the medical treatment An appropriate treatment of mental disorder according to the current psychopathology has to be applied. The drug choice should keep in consideration the risk/benefit ratio concerning sex life, the patient's values, age, compliance, and above all the wishes of the patient concerning his/her sexual activity. It is recommended to select a medication with low incidence of SD, especially for sexually active patients. There is evidence of increased sexual desire in some patients over time, which can be seen in the context of improved psychopathology. If the SD preceded the onset of, e.g., depression (further worsening it) or it developed during the depressive episode, an antidepressant (AD) with minimum sexual adverse effects or even with a positive effect on the dysfunction is recommended. If AD is started in patients who have never suffered from SD, it is essential to provide them with comprehensive information about that risk. Sexual side effects induced by AD or antipsychotic can be managed using several treatment strategies [28, 30] (see Chap. 24 for more information on psychopharmacology and prevalence and management of medication-related sexual adverse effects).

Case Report 1

Wilma, 52 years old, executive in public administration

She was advised to consult a sexologist because she had been complaining about sexual difficulties for many years. Since she was 22, she has dealt with various group and individual psychotherapies, always completing them. In the course of her life, she had three episodes of auditory hallucinations, treated pharmacologically, and several other symptoms: bulimia, panic attacks, depressive periods with suicidal ideation, and sexual pain. Romantic relationships were scarce and unsatisfactory. The only important one, between 32 and 36, was a bad experience for her. In the last 3 years, she has been following a psycho-pharmacological treatment with a psychiatrist who, together with her gynecologist, referred the patient to me. Wilma claims to have many friends who love her and a very dysfunctional family of origin. She believes that the dead mother still comes in her house when she needs protection or advice and leaves signs of presence.

She looks like a nice person, very happy to meet a sexologist. She is currently involved in a relationship with two men (both know about the

existence of the other); one of them is more sexually experienced than the other and willing to succeed to give her pleasure. She complains of generalized and lifelong anorgasmia and often does not feel comfortable during sexual intercourse. She tried several times to bring these issues up into her therapies, but without success. Clinicians always told her that sexual problems would only be solved when she cleared her psychological and relational difficulties.

Treatments Steps

The PLISSIT model was applied.

The first two sessions were used to collect the patient's sexual history and expectations (which were realistic). A lack of information on the anatomy and physiology of sexual response has emerged, as well as some false beliefs about sexual performance. Feelings of shame and inadequacy accompanied her story. What we discovered together is that she was not anorgasmic (she might manage to get an orgasm through autoerotic activity) but rather that she could not reach orgasm during coitus. We agreed that I could share these findings with her psychiatrist and gynecologist and inform them about the treatment plan.

One session was used to give her information about the physiology of the sexual response and the importance of the proper stimulation of the clitoris to get an orgasm. Specific suggestions were provided to enrich and extend the time of the foreplay to get an orgasm without intercourse together with her partner.

During the next session, we revised the experiences she had done that were successful. Further advice concerned the positions she could try throughout intercourse that could increase the chances of reaching an orgasm. A suggestion to consider a direct stimulation of the clitoris together with the penetration, possibly also with the aid of a vibrator, was introduced. Types and functions of the different vibrators have also been considered, as the patient was willing to use these devices. It was very important for her to talk openly about all these issues.

Within a month, the patient was able to reach orgasm during intercourse in about 50% of the time with the experienced partner. She understood why she got the problem in the previous years, how to manage it, and also why she does not succeed in each sexual episode (emotional or relational variables, distractive thoughts). She felt happier and more aware of her sexual needs. She shared on her own the results with her psychiatrist, and they could move forward with the psychotherapy with new insights. I reported to the colleagues as well.

Case Report 2

Paul, 45 years old, computer technician

He decided to consult me because several years earlier I treated his brother for a sexual problem. His psychotherapist, who has been following him for 3 years and who knows me, agreed to this choice and introduced me to the case. The good relationship between the two of us allowed the patient to feel more protected and less guilty with concluding the previous therapy.

Paul is a very closed person and talks about himself with difficulty. He is afraid of being judged, is very ashamed of himself, feels hopeless, and thinks about death several times as the only solution to his existence. However, he never attempted suicide. He feels inadequate about work and relationships with women and tells of a very conflicted relationship with his parents, which he describes as bigots, ignorant, and severe. He received a very strict religious education.

He lived with his parents up to 40 years, without having any romantic relationship, till when he met the current partner, and immediately decided to live together. Since then, he maintains this relationship which he describes as very positive on all aspects, except sex.

Relative to the sexual area, he feels ugly and unattractive. He thinks his penis is small. He has never had penetrative sex and has no sexual activity with his partner. She never asked to have sex, nor did she ever take the initiative. She simply doesn't seem interested in this aspect of couple life at all. They never talk about it. Previous therapists (and also a priest) have tried to resolve this issue, including involving the partner but without success. He claims to have a "sick sexuality" and to be "deviated," but not to be able to talk about what he has in mind. He often masturbates (he started it when young adult), but this behavior is always associated with feelings of guilt ("I should not do that," "it prevents me from working") or anger ("I would like to have sex with a woman").

He started psychological treatments at the age of 12, due to aggressive behavior toward his parents. After that route, there were several others from the age of 22 onward, with periods of breaks. He consulted three psychiatrists and one sexologist and followed three psychotherapies, one for 7 years. He has always discontinued them, even after a long time. He never took medications. No practitioner gave him a diagnosis, and with no one managed to address his sexual problems. With all, he reports of problems related to transference and countertransference, although he appreciated some results. He is convinced that nobody can help him.

Treatments Steps

The first months of treatment were committed to building the therapeutic alliance. The key points of this phase were the following:

- Identifying his needs and goals for change
- Identification of a psychopathological and sexual diagnosis

- Evaluation of realistic/unrealistic changes
- Transference/countertransference management in the "here and now"

What the patient appreciated most in my approach was the determination to focus on his disorders and the clarity in identifying the therapeutic steps.

Together we realized that the diagnosis that was closest to his experience was the persistent depressive mood (dysthymia), with anxious distress, associated with the avoidant personality disorder. It had probably an early onset and developed with intermittent major depressive episodes. We also discussed that it has normally a chronic course, and so he should learn to deal with it, possibly also with pharmacological treatment.

Regarding his sexuality, we did a thorough assessment of his body image, his thoughts, experiences and associated emotions, and, finally, with great difficulty, his sexual fantasies. Paul describes a sadistic orientation, with an interest in dominance. His sexual preferences are more like a paraphilia in the area of "soft BDSM" than a paraphilic disorder. He never accepted his interests, judging them always as unmentionable, deviant, far from the normality, and evidence of a sick mind. Sometimes he had sex with escorts, never penetrative because he felt insecure and lost his erection. He had always lived these experiences as a failure. He does not feel manly and in the end not even a man.

In this case, it was important to educate the patient on atypical sexual preferences, on their prevalence, and on BDSM in particular. I suggested him to visit websites dedicated to sexual minorities and chat and readings that could help him to better frame his situation. The characteristics of his paraphilia were investigated and compared to what he was discovering with learning about it. We then explored what he wanted for his sex life, and he concluded that he wished to feel more confident in approaching women in general and to have sex with women other than his stable partner.

Normalization, reassurance, and specific suggestions have led the patient to try sexual encounters through dating apps. Counselling with a urologist has been suggested to evaluate the possibility of using PDE-5i. Paul understood that penetration was not essential to his sexual satisfaction; rather it was an inhibiting factor for excitement. Masturbation has become less frequent and used only to respond to sexual needs rather than mood dysphoria.

The elaboration of the feelings of guilt, persecutory and judging thoughts, shame, and anger were all elements that characterized the therapeutic path. Moreover, the possibility to open communication on sexuality with the partner was often initiated but declined. Despite the achievements in experiencing his sexuality and the greater awareness of all the psychological and relational variables at stake, the management of depressive and anxious states remained a problem for Paul. After 2 years of therapy, he finally agreed to consult a psychiatrist in my network to evaluate a pharmacological help.

Case Report 3

Laura, 28 years old, junior manager in a head-hunter company

Laura's GP referred her to me for psychotherapy after listening to her psychological problems. Laura has already tried other therapies since she was a child, interrupting them after a few sessions. She received various diagnoses, one discordant from the other, usually based on specific symptoms, from time to time different. She arrives with a very cynical attitude toward the other specialists, ridiculing their conclusions. She describes herself as a very intelligent but certainly disturbed person because she has always felt mentally ill. She has agreed to come to me because she feels in great need of help, has read my CV, and thinks she can trust me. She is also very happy that I have a specialization in clinical sexology because she has sexual problems ("with sex I'm stuck; I want to do it but I feel disgusted if I think about sexual intercourse").

Laura belongs to an extended family, very noticeable in the city, where men are all university graduates, with prominent positions in society. Some women in the family are also very clever, but in a subordinate position (no degree) compared to the men, or "simply stupid and then housewives, in the role of first ladies." Appearance has always counted a lot, while the processing of emotions is nearly absent. If there is an issue, it is faced with the advice of the males, and in a practical, linear way. It is not possible to have psychological problems, they are not understood; indeed, the family gets angry and disturbed by these complaints. She is the third of three children (one male and two females), where the first two have perfectly adapted to the family style: the first a successful lawyer and the second a not graduated but beautiful and very affable person. She describes her father as a good man, but unreliable due to problems with depression and alcohol addiction; however, he is the only one in the family who can touch emotions. The mother died 10 years earlier from cancer. Laura has always tried to have close contact with her: as a child, being shy and irritable, she sought protection and comfort, but her mother did not seem to be effective in reassuring her. Rather, she was compared with the other siblings, who were more socially skilled. From puberty on, Laura changed her attitude and became more aggressive and unfriendly with her mother, losing all hope of being understood. Her mother's premature death prevented her from evolving this relationship, and Laura seems very angry with fate. During adolescence, Laura showed several symptoms: self-mutilation, eating disorders, dysphoric mood, affective, and impulsive lack of control. She also started seriously thinking about suicide. Nevertheless, she has always been successful in school performance, even after the loss of her mother. She managed to graduate in economics and immediately found a good job in another city, where she moved at 24 years old. As a result of a bad relationship with a partner, she decided to leave everything and to go back home.

In the last year, she is sharing an apartment with two roommates. She enrolled in a master's degree in business management but with poor results. She feels very depressed and thinks frequently of committing suicide; life

seems too painful to be lived, and she is quite sure to commit suicide within a year. She has no partner and is afraid she will never have one because of her sexual problems. She claims to be still a virgin; although in the last relationship she felt very attracted to the partner and was willing to have sex with him, she failed in sexual intercourse. Laura is very seductive and charming with men: she flirts for a while, and when she gets attention, she leaves the game. "I use them, and then throw them away. But the truth is that I'm afraid." Laura would like to feel "normal" and to enjoy a relationship with a man. She would like to trust and feel safe. She would like to get free from this unbearable emotional pain. Her greatest fear is to be abandoned because she has learned that when she loves, in the end, the other leaves.

Treatments Steps

After careful listening during the first session, my approach to the patient was very honest: I told she was a complex case, where caution and attention were needed, and she was putting a time bomb under my chair. Risk of suicide is scary for any clinician, and she looked serious. However, she understood that I could help her if she was willing to help me understand her mind, and for that, we would be authentic with each other. This was our agreement, and she accepted that our main task was to study her *core relational theme* (see Chap. 9), in other words, what happens when she has a need (what she expects from the other, how she sends the request, the real answer of the other, and her behavioral and emotional feedback). Other key points were shared with the patient in the first phase of the treatment:

- We will use psychiatric counselling to confirm the diagnostic hypothesis and to evaluate the opportunity to take medications.
- We will work in parallel on her sexual problems. We will use a gynecological consultation and an integrated approach.
- She will always have a choice in her hands: what, when, who, and how. I will help her in evaluating pros/cons and in seeing alternatives.
- We will focus on what she feels is important or gives her distress.
- Rules on privacy in case of requests/calls from her family (who were already very involved in her choices of treatment).

After a few months of treatment, we concluded that Laura has a borderline personality disorder associated with a narcissistic personality disorder. Eating disorders and alcohol abuse allow her to keep some situations under control. A marked reactivity of mood reflects Laura's extreme sensitivity to interpersonal stresses. Her intelligence, when free from anxiety or affective instability, is a good ally in identifying problems and processing experiences. The psychiatrist suggested a pharmacological therapy that was unsuccessful because Laura was not constant and drank too much. In 1 year of psychotherapy, she achieved better stability and got a new job in a head-hunter company. She was so good that she quickly reached positions of responsibility.

About her sexuality, we understood that she developed vaginismus, and she was willing to deal with it. After a gynecological consultation, we proceeded with a step-by-step program, which involved several strategies (education, self-awareness, active relaxation, Kegel exercises, vaginal stretches, progressive desensitization with fingers and dilators to allow the vaginal entry). A good therapeutic alliance was crucial to face her feelings of inadequacy and her phobia. Tailored sexological treatment and a constant reassurance on her possibility to succeed were needed. In 3 months, Laura was able to insert the dilator size 4 (16 cm × 3.5 cm) and felt much less afraid of intercourse. This new skill fosters her to open to a new relationship with a partner.

At that point of the therapy, Laura decided to retrace some critical events of her childhood and adolescence (one of them was sexual abuse) that she tried to share with her own family but for some reason was left alone to processing these experiences. It was very painful for her to revisit facts and emotions, though important for new insights on her disorders. She became more and more aware of the features of her personality disturbances and of the risks to which they expose her, above all for suicide. We took the time to discuss the stability of the personality traits but also the possibility to evolve improved functioning and well-being and that the emotional pain can gradually wane with advancing age. This information was in some way a relief for her mind.

When the current partner broke up the relationship, Laura went again in a deep crisis. This time she was more available to accept a pharmacological aid, and we could integrate it with the psychotherapy.

12.4 Key Messages

- Sexual counselling applies to the provision of advice and guidance in personal, biological, psychological, and social aspects of sexual life. The role of the counsellor is essentially to prepare the patient's choice to change. The PLISSIT and the BATHE-RS models can be used for this service.
- Sexual therapy applies to the appropriate evaluation and psychotherapeutic treatment of sexual disorders. The specialist is able to implement an integrated clinical intervention for a change that allows the improvement of sexual health. The final goal is the improvement of personal satisfaction and quality of life. This could often coincide, but not necessarily, with the cure of the disease.
- The bio-psycho-social model (multifactor levels on assessment, diagnosis, and treatment of sexual problems) is recommended. It means an integration between psychotherapeutic theories and techniques, working in a multidisciplinary team and using all available resources—medical, pharmacological, psychological, relational, and psychosexual.
- Knowledge and competence, as a result of good training and professional expertise, should lead to greater flexibility in adopting a patient-centered approach.

The ICSM five-step algorithm for the management of sexual dysfunctions in men and women is endorsed as guideline for healthcare providers in this field.

- Clinical sexologists who perform psychosexual therapy should know different models and techniques, in order to apply the appropriate intervention in the different phases of the therapeutic process.
- Sexual dysfunctions are prevalent among psychiatric patients and may be related to the psychopathology, social stigma, and the side effects of pharmacotherapy. Nevertheless, specialists often omit sexual issues due to the influence of various misleading myths about sex and mental disorders.
- A strong collaboration between the psychiatrist and psycho-sexologist is suggested. Each clinician can apply a holistic evaluation of the patient/couple by his/her own area of expertise, and then they can together build a tailored treatment plan. Modern developments in psychiatry include recognition of the beneficial effects of a healthy sexual life in patients with severe mental disorders.

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Cognitive Disorders

13

Jannis Engel, M. Axel Wollmer, Katharina Hösl, and Tillmann H. C. Krüger

13.1 Introduction

In the *Diagnostic and Statistical Manual of Mental Disorders*, fifth edition (DSM-5), CDs include delirium as well as mild and major neurocognitive disorder [1]. The latter largely corresponds to and replaces the term "dementia" in this classification system [1]. (Neuro)cognitive disorders predominantly affect older persons and reduce their abilities in executive functioning, perceptual-motor functioning, complex attention, language, learning, memory, and social cognition [1]. These reduced cognitive abilities may in turn affect sexual functioning. Despite the increasing number of older persons in the global population, literature on the impact of CD on sexuality remains sparse [2]. In this chapter we will not only present possible difficulties accompanied with CD but also a resource-based approach highlighting the positive aspects of sexual behavior in patients with CD.

13.2 Clinical Manifestations

13.2.1 Cognitive Disorders and Sexual Functioning

To a large extent, CDs are age-associated diseases. Relationships may change over time, and psychological and physiological changes including somatic diseases can affect

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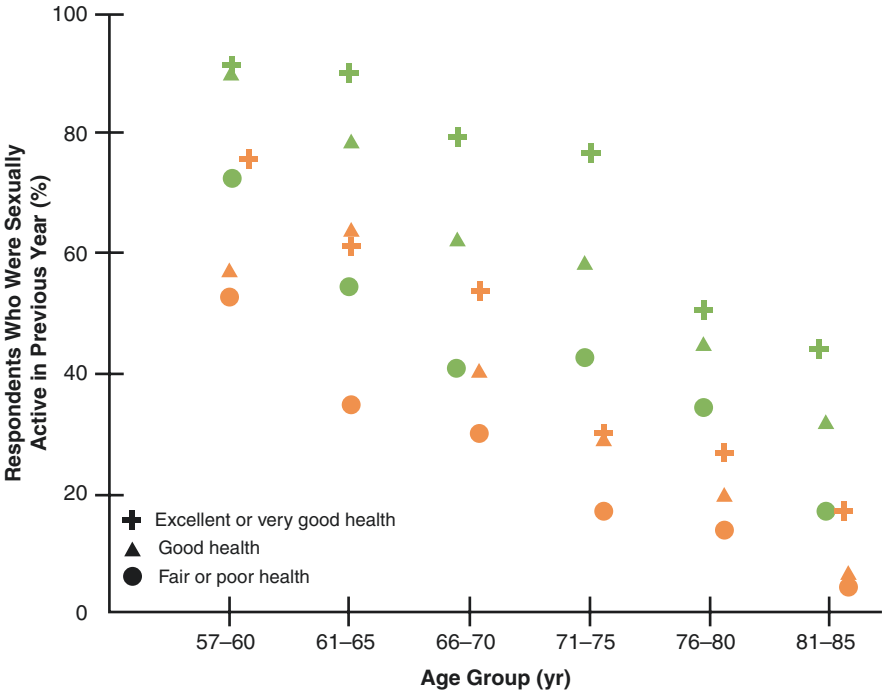

Fig. 13.1 Sexual activity among elderly according to the National Social Life, Health, and Aging Project NSHAP redrawn and adapted from Lindau et al. (2007) [5]

sexuality. Even though the connection between cognitive functions and sexuality remains understudied, cognitive decline and major neurocognitive disorders appear to be associated with reduced sexual activities in older persons [3]. Physiological changes, disease, and loss of partner are possible reasons for a lower frequency in sexual behavior, but sexual interest is still prevalent even in older age and even in cases of fair or poor health [4, 5] (Fig. 13.1) (see also Chap. 29 for more information on late-life sexuality).

To understand why CD may interfere with sexual function, one must understand the neurobiological basics of sexual arousal. During processing of sexual drive and arousal, higher cortical areas such as the prefrontal cortex, parietal lobes, and amygdala are involved, and they are essentially needed to steer appropriate sexual excitation and inhibition [6]. Without cognitive, emotional, and motivational components as mediated by the brain, the generation of the different phases of the sexual response cycle may be difficult to be reached, or vice versa there may be inappropriate disinhibition of sexual behavior [3] (see also Chap. 7 on neurophysiology of sexual response).

13.2.2 Difficulties in Sexuality Differentiated by Types of Cognitive Disorders

Different types of cognitive disorders may have different effects on the sexual life of affected persons. Most data on the effect of cognitive disorders on sexual

functioning are restricted to frontotemporal dementia (FTD), Parkinson's disease (PD), and Alzheimer's disease (AD), while the data on the associations of dementia with Lewy bodies, vascular dementia, and other dementias remain sparse.

13.2.2.1 Frontotemporal Dementia

Due to its effects on areas of the prefrontal cortex, temporal lobes, and the associated executive functions, FTD is often associated with disinhibited sexual behavior. The exact neurobiological etiology of inappropriate behaviors remains poorly understood [7], but disinhibited behaviors, such as hypersexual behavior, can often be seen in the behavioral variant of FTD, which affects ventromedial frontal and adjacent anterior temporal regions specialized in interpersonal behavior [8]. Clinically, hypersexual behavior is characterized by intense and repetitive sexual behaviors, which are often accompanied by psychological impairment or difficulties with the social environment [9]. Compared to other forms of dementia, it is more common in FTD, e.g., it was diagnosed in 13% of FTD patients compared to none in Alzheimer's disease [8].

13.2.2.2 Alzheimer's Disease

Alzheimer's disease (AD) is the most common type of degenerative dementia, and it is associated with many sexual dysfunctions and marital difficulties [7]. Many couples affected by AD continue to maintain sexual intimacy, in particular non-intercourse sexual activities such as kissing, hugging, and cuddling [7]. In the course of the disease, however, many partners of affected patients are distressed in cases where patients cannot remember their partners names anymore or have difficulties in paying attention to their feelings [7]. In fact, sexual activity and satisfaction of partners of patients affected by AD were negatively correlated to severity of AD [10]. Furthermore, some patients with AD show inappropriate sexual behaviors [7].

13.2.2.3 Parkinson's Disease

Parkinson's disease (PD) is characterized by a deficit in the neurotransmitter dopamine, which has been suggested to play a role in the development of sexual desire and penile erection [7]. However, the exact relation remains uncertain, as there is not always a clear association between dopamine levels and sexual motivation, and it matters which dopamine system is disturbed [11]. Sexual difficulties are consistently reported in PD, in both men (68%) and women (36%) [12]. In their extensive review of the literature, Bronner et al. found that sexual difficulties in men with PD are predominantly erectile dysfunction, difficulties in reaching orgasm, and premature ejaculation [7]. In women, PD is associated to low sexual desire, as well as difficulties with arousal and orgasm [7]. Possibly, men with PD report greater difficulties with sexuality, because the reported difficulties interfere with their assumed active sexual role to a greater extent [7]. Treatment of PD has been connected to the emergence of hypersexual behavior for a long time [7]. Dopaminergic therapy may have an enhancing effect on sexual behavior, because it stimulates the D2 receptor in the medial preoptic area [11, 13]. It inhibits prolactin secretion (which has a dampening effect on sexual desire) or increases plasma levels of oxytocin, possibly inducing erectogenic effects in the lumbosacral spinal cord [11, 13]. Dopamine agonists, especially

the ones with strong D3 agonism, seem to have the greatest risk of inducing impulse control disorders including hypersexuality (see also in Chap. 30).

13.3 Clinical Management

13.3.1 Decision-Making and Consent

More complex cognitive processes such as judgment, consent, abstract thinking, as well as sense of self and others are necessary for decision-making. There is a fine line between harm and freedom in the management of patients with CD [14]. Depending on national laws, engaging in sexual behavior with a non-consenting individual can be classified as rape or sexual assault [15]. While the laws may be clear for some cases, in many situations, it remains uncertain whether patients with CD specifically agree to sexual activities or not. A spouse who had a loving and caring relationship to a partner with CD may still have a need for sexual intimacy but may not know if their partner actually wants to engage in this behavior [15]. While most ethical guidelines are normative in nature, in reality one relies on heuristics or "rules of thumb" for decision-making [15]. Partners of subjects with CD may interpret the reactions to intimate advances as positive, giving permission to continue. However, sexual encounters often occur spontaneously, without formally asking for consent, and the fear of misinterpreting the partner's reaction contributes to stress and burden associated with the role of a caregiver [15].

13.3.2 Inappropriate Behaviors

Sexual disinhibition is recognized as a behavioral and psychological symptom of major CD [16]. However, it can also be seen in minor CD [17]. According to De Medeiros et al. (2008) [18], inappropriate behaviors can be classified into two different types:

1. Intimacy seeking. Normal behaviors (e.g., kissing and hugging) in a misplaced social context
2. Disinhibited. Rude and intrusive behaviors that would be misplaced in most contexts (exhibitionism, fondling, lewdness)

Understandably, inappropriate behaviors can be a heavy burden for medical staff and families [19], and patients who show inappropriate behaviors have a greater likelihood of entering residential care [20]. The prevalence of inappropriate behaviors ranges roughly between 2 and 25% depending on the setting, as it is more common in hospital inpatients [19]. A large variety of substances have been described as useful to reduce inappropriate behaviors, such as antipsychotics, antidepressants, cholinesterase inhibitors, antiepileptics, non-hormonal and hormonal antiandrogens, and beta-blockers [19]. However, the evaluation of the treatment of inappropriate behaviors is mostly restricted to case studies and case series; randomized

controlled designs are missing [19]. Moreover, many ethical concerns regarding the treatment of inappropriate behaviors exist, e.g., balancing patients' rights for sexual expression against expectations and beliefs from his or her social environment, that older persons are not genuinely interested in sex [19]. Based on a systematic review of the literature, Tucker (2010) [19] proposed the following steps in managing inappropriate behaviors (Fig. 13.2). First of all, patients should undergo a comprehensive assessment of their sexual behaviors, including a sexual history and a collateral history from family members. Medications that may enhance inappropriate behaviors (e.g., dopamine agonists) should be avoided or their dosage adapted. Neuropsychological and neurobiological examinations, such as fMRI testing, can

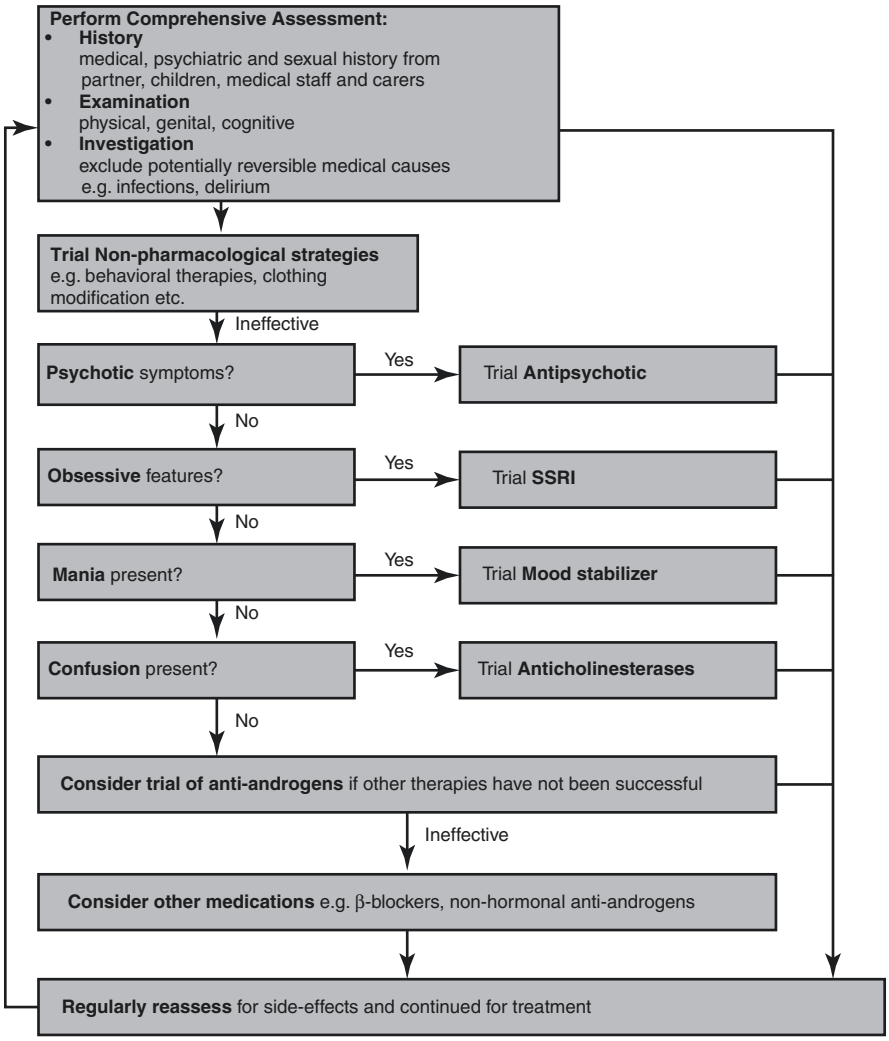

Fig. 13.2 depicts the management of inappropriate sexual behaviors in patients with CD, redrawn and adapted from Tucker (2010) [19]

further help to investigate potential underlying treatable diseases. It is then important to investigate to whom the behaviors are a problem and why and to determine if the sexual behavior is inappropriate or not. After the detailed assessment, it is useful to tailor non-pharmaceutical strategies to reduce inappropriate behavior (see Box 13.1). In the case that non-pharmacological interventions do not work, treatment can involve medication. Of course, potential side effects of medications should be monitored [19].

Box 13.1 Non-pharmacological Management of Inappropriate Behaviors, Suggested by Bronner (2015) [7]

Bronner (2015) gave examples and useful interventions on how to non-pharmacologically deal with inappropriate behaviors in cognitive disorders [7]. Examples for inappropriate behaviors that clinicians regularly have to deal with in patients with cognitive disorders are lewd language, public undressing or genital touching, misidentification, and attempts to have sex with non-consenting individuals [7].

During the course of the cognitive disorder, patients often lose the ability to monitor their language, and they use disinhibited, lewd language. It is more effective to decrease stress for the patients or avoid frustrating situations whenever possible than reacting with anger or rebuking the person [7]. When regular use of lewd language occurs, it may be helpful to assertively state: "this is unacceptable" and then leave the room for a short while, which may function as negative conditioning and break the behavior cycle.

Usually, public undressing or genital touching is not sexually motivated in cognitive disorders; it is rather a result of other reasons, such as pain, discomfort, hyperthermia, distraction while changing clothes, or attempts to be freed from a restrained environment [21]. Public health professionals should seek to understand the underlying reasons for this behavior in their patients. It may be helpful to distract the patients, e.g., going for a walk or playing a game to occupy the hands to stop public masturbation or undressing.

In the later course of cognitive disorders misidentification of other people regularly occurs. It can be upsetting for close relatives if patients try to initiate sexual behaviors with them, because they mistake them for their partners. This behavior should be dealt with in an easy and non-judgmental manner. Relatives should be educated that the patients would probably be horrified if they would understand what they are doing. Distraction can also help here, e.g., a daughter should say: father, I'm your daughter, let's go for a walk.

It can be necessary to separate patients from another resident or staff members when the person appears to trigger inappropriate behaviors, such as attempting to have sex, e.g., in moving the patient to another room. In some cases, patients were handed out large dolls, to provide alternative means of sexual release [7].

13.3.3 Reactions of the Social Environment

In spite of the great impact of CD, friendship, love, intimacy, and sexuality are still often embedded in marital life of affected couples [22]. However, spouses of subjects with CD report that the relationship to their partner changes and that they perceive their relationship often as "unequal" after the diagnosis [22]. These feelings of inequality often cause negative reactions and feelings such as stress, frustration, loss, sadness, and anger [22]. Emotional and physical intimacy was experienced by spouses but needs for physical sexuality are often not shared. Furthermore, in some cases spouses stop being attracted to their partners with CD [22]. In care facilities, sexual relations involving persons with CD are often perceived as problematic by medical staff, especially when/if only one person with a CD is involved in the relationship [23]. Typically, the reaction of staff, when they notice sexual behaviors in patients with CD, is to discuss the case with a colleague or supervisor, but not with the patient's relatives [23]. Restrictions of sexual behaviors imposed by medical staff include direct measures to prevent situations from happening, admonishing, or even scolding the residents [23]. These measures happen even in situations without any suggestions of abuse; 40% of surveyed medical staff indicated that this was a common practice [23].

13.4 Positive Views on Sexuality in CD and Resource-Based Approach

Despite the aforementioned odds, we want to stress that intimacy and sexuality may also be a great resource for couples affected by CD. Many elderly people in Europe and the United States came of age during the sexual revolution of the 1960s, the slogan of the hippie movement being "make love not war" [24, 25]. Sexuality is becoming even more important in coming cohorts, including persons living with CD who are gay, lesbian, bisexual, and transgendered persons [15]. The phases of sexual response are the same in older persons, and there is no fixed age limit for sexual functioning [3]. Non-intercourse activity may be preferred over intercourse, but physical intimacy is frequently lived out in couples affected by CD [26]. Drugs like the PDE-5 inhibitors sildenafil and others make sexual activity more feasible for older couples [2]. Long-term care may even create new social opportunities and possibly lead to sexual encounters for old persons with people of the same age [2]. For residents of long-care homes, Roach (2004) [27] constructed a scheme that may assist in helping residents to achieve an enjoyable sexuality (Fig. 13.3). Her model may help staff of residential homes to create an atmosphere of "proactive protection" of sexuality [27].

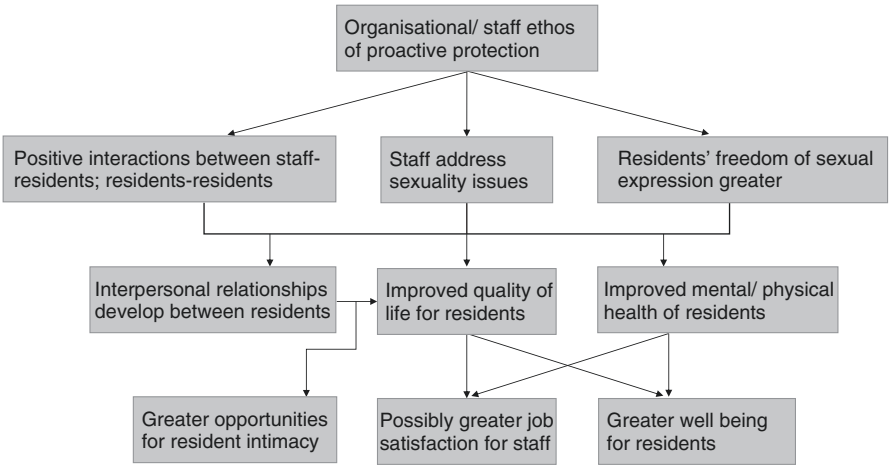

Fig. 13.3 depicts a scheme redrawn and adapted from Roach (2004) [27] that may help in creating a "proactive protection" of sexuality in long-term care facilities

13.5 Key Messages

- Cognitive disorders (CD), including delirium, minor cognitive disorder, and major cognitive disorder (dementia), often have an adverse impact on sexuality.
- Sexual activity is often reduced in patients with CD.
- Capacities for decision-making and consent to sexual behaviors are often diminished in patients with CD.
- Inappropriate sexual behaviors and CD are regularly associated.
- Training the awareness of medical staff enables a good management of sexuality in patients with CD.
- Despite all odds, sexual behavior may as well be a great resource for improving the quality of live in patients with CD.

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Substance-Related Disorders

14

Jannis Engel and Tillmann H. C. Krüger

14.1 Introduction

The use of mind-altering drugs can be found across history and all cultures, including the search for substances that enhance sexual functioning [1]. Generally speaking, while some substances are viewed as aphrodisiacs, the chronic use of legal and illicit drugs usually impairs sexual functioning in many individuals [1]. Hence, sexual *dys*-functions are common phenomena in substance-related disorders. A large variety of sexual dysfunctions may be associated with addictive disorders such as sexual interest/desire and arousal disorder, orgasmic/ejaculatory dysfunction, erectile dysfunction, sexual pain disorders, and priapism (significantly prolonged erection).

The exact prevalence of sexual dysfunctions due to substance-related disorders is unknown and depends on consumed substances, e.g., higher rates in individuals who abuse heroin compared to methylenedioxy-*N*-methylamphetamine (MDMA) [2]. Moreover, it can take years of use (e.g., alcohol) until problems with erectile function emerge, and a diagnosis can be extremely difficult to be made with certainty [2]. Unfortunately, to date, there is only very limited data available, and almost all data is derived from self-report questionnaires making it difficult to isolate actual effects of substances and confounding variables. Therefore, for clinicians, it remains difficult to disentangle cultural, social, psychological, and biological etiological factors in sexual dysfunctions. In this chapter, we will provide an overview on the available knowledge on the relationship between substance-related disorders and sexual functioning. As different classes of substances have different effects on sexual functioning, we divided this chapter according to the drugs often seen in clinical practice.

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14.1.1 Substance-Related Disorders and Sexual Dysfunction

The *Diagnostic and Statistical Manual of Mental Disorders, fifth Edition: DSM-5* and the upcoming International Classification of Diseases (ICD-11) disorders due to substance use are categorized according to the substance of abuse [2, 3]. One can classify sexual dysfunctions that are associated with substance use in both diagnostic systems. The diagnosis can be given if a close relationship can be seen between substance/medication initiation or discontinuation and sexual dysfunctions. In *DSM-5* [3], clinicians can use the category for substance−/medication-induced sexual dysfunction if a sexual dysfunction due to a substance is the predominant clinical picture. For the diagnosis, there must be evidence that the cause of the sexual dysfunction is substance use. Moreover, the condition should not be better explained through a sexual dysfunction that is not medication−/substance-induced. The diagnosis should not be given if the sexual dysfunction exclusively occurs during the course of a delirium [3]. In ICD-11, prevalent substance use disorder is listed first, followed by the specific diagnosed sexual dysfunction, information on the onset, and symptom severity. For example, if a sexual arousal disorder is thought to be caused by intense cocaine consumption, the diagnosis is recorded as F14.281 severe cocaine use disorder with cocaine-induced sexual arousal disorder, with onset during intoxication, severe. An additional diagnosis of cocaine use disorder is not given. If there is indication that several substances caused the development of the sexual dysfunction, multiple diagnoses should be listed separately [3].

As will be described in the current chapter, substance use has acute and chronic effects on sexual functioning. The dual control model proposes that the interaction between sexual excitatory and sexual inhibitory processes regulates sexual response [4]. According to the dual control model, excitatory and inhibitory processes depend on a theoretical neurophysiological system whose function is to determine sexual opportunities and threats to the sexual response [5]. Furthermore, different substances may have an effect on different phases of sexual functioning [6]. Clayton summarized findings on effects of neurotransmitters and hormones on female sexual dysfunctions (Fig. 14.1).

However, interaction effects of substance use, neurotransmitters, and hormones relevant to sexual functioning remain largely unknown. On an acute level, the use of some substances (e.g., alcohol) reduces sexual inhibition, whereas other substances (e.g., ecstasy) may increase sexual excitation. Chronic use of most legal and illegal drugs, however, increases the risk for developing sexual dysfunction. Long-term use of some substances has well-known side effects on sexual functioning, e.g., cigarette smoking, which is followed by erectile dysfunctions through reduced genital blood flow [1]. Other relations remain not fully understood, but can often be seen in the clinical picture, e.g., loss of sexual interest after chronic cocaine consumption, possibly due to the effects of cocaine on the reward system which reduce sexual excitation. A further effect of substance abuse is risky sexual behavior. Taken from our clinical experience, individuals reported risky behavior mainly when intoxicated, especially when substances like alcohol, gamma-hydroxybutyric acid/γ--butyrolactone (GHB/GBL), mephedrone, and cocaine were used. Substance use,

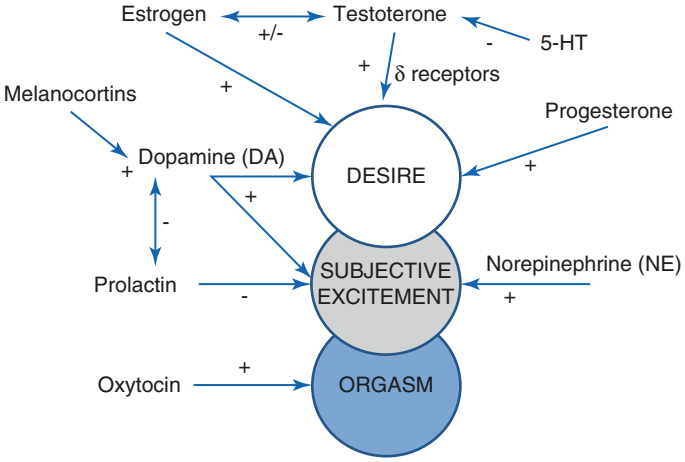

Fig. 14.1 A model of effects of neurotransmitters and hormones on different phases of sexual functioning (adapted from Clayton [6]). Interactions of neurotransmitters and hormones with drugs of abuse are certain but remain not fully understood

however, may also have indirect effects on sexual functioning. The abuse of substances is often followed by difficulties in couples. Intimacy deficits are often observable in partnerships, in which one or two partners have substance dependencies. These intimacy deficits are maintained by decreased sexual functioning and may in turn hinder successful interventions (e.g., sensate focus therapy).

14.2 Clinical Manifestations

14.2.1 Alcohol

In Shakespeare's *Macbeth*, the foolish and drunken Porter elegantly summoned the effects of alcohol on sexuality: "it provokes, and unprovokes; it provokes the desire, but it takes away the performance [7]." Also modern popular culture in many countries is full of associations between alcohol and sex. Alcohol may be used to tackle sexual performance anxiety [8]. Almost all controlled studies investigating the impact of various substances on sexual functions have been restricted to alcohol [9]. However, as alcohol is widely used in social settings, it remains difficult to disentangle substance effects from psychological expectations [9]. Alcohol has a depressive impact on the central nervous system [9], and chronic use of alcohol may inhibit the hypothalamic-pituitary-adrenal axis and reduce the release of gonadotropins from the anterior pituitary gland [8]. In addition to the direct oxidative toxic effects of alcohol on the nervous system, alcohol consumption has been associated with testicular atrophy, inhibited testosterone production, and decreased spermatogenesis [10, 11].

In men, acute effects of low doses of alcohol may induce sexual disinhibition, whereas consumption in high doses seems to provoke reduced sexual arousal as

well as impairments in erectile function and difficulties to ejaculate [9]. Chronic alcohol abuse has the potential to impair all aspects of male sexual function [9]. Clinicians should know that sexual dysfunctions due to chronic alcohol abuse may be irreversible, even though testosterone levels may be restored after a few months of abstinence [12], possibly resulting from neurological damage [13].

In women, the acute effects of drinking alcohol are often reduced sexual inhibition [14]. On the other hand, when higher alcohol blood levels are reached, sexual arousal and the ability to achieve orgasm are usually decreased [15–17]. Just like in men, chronic alcohol consumption is connected to sexual dysfunctions [9]. Rates of lifetime difficulties reaching orgasms, decreased lubrication, and painful intercourse were roughly twice as high in women with chronic alcohol abuse compared to healthy controls [18].

14.2.2 Opioids

Opioids such as heroin, methadone, and fentanyl agonize different receptors in the central nervous system, thereby leading to analgesia and sedation [9]. Opiate drugs are agonists to different receptors (e.g., κ-, ϱ-, and μ-opioid receptors), and it has been proposed that different effects of opioids are mediated by different populations of receptors [19]. Apart from the rather sedative effects, opioid intake can have other reactional components like a euphoric rush, a feeling of well-being, or a highly dysphoric withdrawal state [20].

The United Nations World Drug Report states that the abuse of opioids is accountable for three quarters of all deaths due to illicit substances [21]. Furthermore, intravenous injections of opioids are associated with a risk of getting infected with sexually transmitted diseases, e.g., through syringe-sharing [22]. In addition, opioids are connected to a variety of sexual dysfunctions, including erectile dysfunction, premature ejaculation, orgasmic dysfunction, and low libido [8]. Most studies on the connection of sexual dysfunction and opioids are restricted to heroin use. To users, the acute effects of heroin are often described as being similar to sexual orgasm [9], and low doses can enhance sexual desire and performance [23]. This may be caused by heroin's ability to delay orgasm, its relaxing effects, or a reduction of genital pain [9]. The effects of chronic use, however, are usually disastrous for sexual functions. Opioids decrease the release of luteinizing hormone and, as a consequence, suppress testosterone secretion, resulting in lowered sexual desire [9, 24]. Most studies that investigated chronic opioid use reported dysfunctions across all domains of sexual function [8].

14.2.3 Cannabis

Cannabis is consumed in its main forms as herb (marijuana) or resin (hashish) and remains the world's most widely used illicit drug [18]. The main active metabolite in cannabis is tetrahydrocannabinol (THC), which may serve as a hallucinogen and/

or a central nervous stimulant or depressant [25]. The effects of cannabis are mediated through at least two cannabinoid receptors that have been identified: CB_1 and CB_2. CB_1 receptors can be found in the central nervous system, where they cause typical effects like depression of motor activity or a feeling of relaxation, and in peripheral neurons, where they suppress the transmitter release in organs, such as the heart and bladder. CB_2, on the other hand, has only been found outside the central nervous system, for example, in cells of the immune system [26]. Despite the wide prevalence of cannabis use, little is known from human studies on the effects of cannabis on sexual function.

Both possible aphrodisiacs properties and possible detrimental effects of cannabis use on erectile function are discussed [25], while causal relations are not well understood. One possible pathway to a positive experience following cannabis use may be that cannabis rush induces more focused attention to sexual sensation and pleasure [25]. In contrast, other studies indicate a clear connection of cannabis use to adverse sexual health outcomes, e.g., decreased erectile functioning. Here the stimulation of cannabinoid receptors CB_1 and CB_2 in the cavernous tissue could play an important role [25]. In a large survey of 8656 Australians, cannabis use positively correlated with a number of sexual partners in women and men, as well as difficulty in men to reach orgasm as desired [27]. In conclusion, the effects of cannabis on men's and women's sexuality remain largely underinvestigated [27].

14.2.4 Nicotine

Among the most in-depth researched influences of a substance on sexual function are the effects of nicotine on sexual functioning. In women and men, smoking has disastrous effects on sexual health [28]. Nicotine is a potent vasoconstrictor and promotes atherosclerosis that hinders efficient blood flow in the genitals required for the physical arousal phase in women and men [1]. Erection and lubrication occur as a result of neural transmission via pelvic parasympathetic nerves [29, 30]. As shown in men, high blood nicotine levels due to smoking can increase the sympathetic tone in the penis through smooth muscle contraction, thus leading to erectile dysfunction [31]. It is important to note that adverse effects of smoking are not limited to nicotine but that there are more than 98 hazardous components identified [32]. Research in men has shown that adverse effects on the reproductive system include reduced semen quality and a reduced response in fertility treatment [28]. Even after a short time of discontinuation of smoking, sexual function can be improved [1].

14.2.5 Cocaine

Cocaine has anesthetic and vasoconstriction effects due to its stimulation on the central and peripheral nervous system [9]. One of the primary effects of cocaine is a pronounced increase of dopamine secretion in the CNS, resulting in a feeling of

well-being and euphoria [33]. This increase of dopamine is due to blocked dopamine reuptake and/or the release of dopamine-containing vesicles [17]. Possibly, because of the effect of cocaine on the reward system, the desire for sex as a rewarding behavior is decreased.

Cocaine seems to have two opposite effects on sexual function: it has been correlated with both increased and inhibited desires [34]. It may enhance sexual desire and arousal due to its dopaminergic effects [1]. Sexual dysfunctions regularly occur due to chronic cocaine use. In men, maintaining an erection seems to be impaired in chronic users, where one study showed that 66% of men using cocaine on a regular basis for 1 year reported erectile difficulties [35]. Moreover, chronic cocaine use is associated with difficulties in orgasm as desired [9]. A secondary effect of cocaine consumption is that cocaine abuse is associated with transaction of sex for money or drugs [36]. Generally, the use of cocaine not only has adverse effects on physical and mental health but also impairs sexual functions in women and men, especially in chronic users.

Case Report 1

Ms. H., female, 29 years old, social worker

Ms. H. seeks advice on her drug consumption and sexual behavior in our consultation hours. She is unsure whether her drug consumption poses a significant risk for her health. The patient is able to enjoy sex without the effects of substances and reaches orgasm through clitoral stimulation. Ms. H. uses substances on an irregular basis (every 3–4 months) to "inspire" her sex life. So far, she has tried alcohol, marijuana, ketamine (~3 times), MDMA/ecstasy (~3 times), and cocaine (~20 times) in combination with sex. Additionally, alcohol was involved in most cases, and marijuana was consumed in about half of the times. She reported different effects of different substances and combinations. The experiences with MDMA/ecstasy were ambivalent, but in most cases, she described the sexual experience as "intense, boundless, active," whereas the effects of ketamine were described as "bodyless, out of space and time." Sex on cocaine was described as being "aggressive, free, and awake." Marijuana made Ms. H. relaxed, and thus, it made her easier to let herself go. All substances, however, had in common that they could have the opposite effects and stop her from enjoying sexual encounter. Unprotected sex did not happen in sexual encounters, but on one occasion, condom use was almost forgotten. The reported motivation for trying out substances in combination with sexual behavior was described as curiosity and that sexual encounters happened after going to bars and dance clubs, where substance use was common for the patient. In our consultation setting, we educated Ms. H. that her consumption of legal and illegal drugs is undoubtedly unhealthy and will impair her sexual function in the long term. At this point, we did not see an urgent need for substance dependency therapy, but clearly the patient was at risk of developing abusive patterns. In the course of the following

visits, a structured interview (SCID-I) and a questionnaire (BDI-II) showed mild depressive symptoms of the patient. We offered a short-term cognitive behavioral therapy in which substance use and sexual behavior and depressive symptoms were addressed. During the course of the therapy, skills were taught to the patient to remind her to use condoms when intoxicated. In this case, before going out, the patient was directed to take a condom in the hand and remind herself that if a sexual situation occurs, she would use it. Furthermore, a key ring was adjusted to her keys that was thought as a reminder to practice only safer sex. Emotion regulation strategies and cognitive reappraisals were taught to address depressive mood. After the course of the therapy, the patient reported the cessation of substance use, fewer depressive symptoms, and confidence to use condoms in all sexual situations.

14.2.6 Amphetamines

Amphetamine and substituted amphetamines refer to a group of psychoactive substances including widely used synthetic drugs such as "MDMA (3,4-methyle nedioxy-methamphetamine)/ecstasy," "methylphenidate/Ritalin," and "crystal meth" [37]. Moreover, amphetamines have been administered as plant products such as "khat" for thousands of years and are widely used in the Middle East and eastern Africa. Amphetamine and its derivatives vary greatly in structure and effects. One of the most prominent biological effects is the elevation of extracellular levels of catecholamines and serotonin in the central nervous system [37]. The impact of amphetamine varies among users. It was observed in a large sample that the prevalence of erectile dysfunction increased in men using amphetamines [38].

14.2.6.1 Ecstasy/MDMA

Often referred to as a "love drug" or "hug drug," MDMA or "ecstasy" activates the dopamine system which may be accountable for increased sexual desire and sexual satisfaction [1]. In men and women, MDMA seems to delay orgasm, which may be appreciated in some men; this effect may be connected to the stimulation of the serotonergic system [1]. However, interviews with MDMA users seem to show that the ecstasy rush is a sensual rather than sexual experience [9, 39], and occurring impairments of sexual behavior and drive after MDMA use may be mediated by increased prolactin [40]. Moreover, case reports exist that connect long-term/chronic MDMA abuse to priapism [41].

14.2.6.2 Methamphetamine

So far, little is known about the direct effects of methamphetamine on the specific aspects of the sexual response cycle, but it is a potent nervous system stimulant which enhances a person's feeling of well-being as well as excitement and may also lead to increased sexual desire, intensified sexual pleasure, and prolonged sexual

activity [42, 43]. The use of methamphetamine commonly comes at the high cost of addiction and health issues, such as stroke, cardiac valve sclerosis, decreased lung function, and poorer cognitive functioning [44], which in turn have adverse effects on sexual function. Moreover, chronic use of methamphetamine can result in erectile dysfunctions and delayed ejaculation in men and delayed orgasm in women [9]. Furthermore, the consumption of methamphetamine is often connected with engaging in high-risk sexual behaviors with potential infections of sexually transmitted diseases including HIV[1].

14.2.7 Chemsex

The term chemsex refers to various substances that are used to facilitate, sustain, enhance, and prolong sexual experience [44, 45]. Chemsex commonly refers to substances like the closely related gamma-hydroxybutyric acid/γ-butyrolactone (GHB/GBL), mephedrone, and methamphetamine [46]. To date, the data are predominantly restricted to men who have sex with men (MSM) [46]. A qualitative study found that chemsex typically involves multiple partners and in some men STI transmission risk behavior was increased [47]. Even in societies that are relatively open toward LBTQs, clinicians ought to be aware that chemsex comes with a very specific role of shame and it is widely used in the homosexual community. The role of shame is enhanced by the direct association of chemsex with risky sexual behaviors and with the use of the drug mainly for sexual purposes.

14.2.7.1 GHB/GBL

GHB/GBL is a depressant of the central nervous system and is also known as G or liquid ecstasy [48]. GHB is commonly referred to as a “date-rape” drug, because it is sometimes used by sexual predators to force others to perform sexual acts, because of the incapacitating effects of the drug [49]. There is some evidence through a well-designed experiment that GHB stimulates hedonic sexual functioning [50]. Moreover, it is possible that the administration of GHB reduced sexual standards, e.g., in lowering the threshold for erotic perception. This is thought to be related with increased sensitivity of mesolimbic pathways [50].

14.2.7.2 Mephedrone

Often marketed as plant fertilizer or bath salt, studies on the effects of mephedrone on sexual functioning remain sparse [51, 52]. Mephedrone stimulates dopamine release and blocks its reuptake [53]. Observed effects of the drug are euphoria and stimulation, and it is often used in nightclubs among MSM in combination with other drugs of abuse [53]. A qualitative study showed that the use of mephedrone has been reported to induce feelings of arousal, prolong sexual intercourse, and facilitate a higher number of sexual partners [47].

Case Report 2

Mr. R., male, 41 years old, software engineer

The patient and his wife live together in a suburban area. Mr. R. describes himself as bisexually oriented but with a strong tendency toward women; he is interested in playing the submissive part in a sexual relationship. Five years ago, the patient started using cocaine every 4–5 weeks. When in a cocaine-induced high, he travels to a park in proximity of the city center. In the park, the patient pulls his trousers down to offer bareback sex to the homosexual community that regularly meets there. Mr. R. is mainly excited by the uncertainty of what is going to happen to him but regrets his behavior when sober. The patient finds it exciting to be sexually humiliated, but not so much by the looks of men. After being in the park for 5–10 h, his wife picks him up so that he doesn't drive home when intoxicated. His wife is devastated by the imagination that her husband has sex with other men. She leaves an impression that she is truly unhappy with her marriage and reports depressive symptoms. Furthermore, difficulties in the couples' communication were observed. Both partners reported a need for intimacy and a desire to have sex with each other. These needs where not met and poorly communicated. However, Mr. R. claims that she does not want to leave her husband and signals that she would be willing to work on an improvement of their marital difficulties. The first step in therapy was developing a model of substance-using behavior. It was explored in which situations Mr. R. felt increasing urge to use cocaine. It turned out that the consumption of cocaine had two main functions: First, it was used for withdrawing from interactions of the husband with his wife. Second, it was used to decrease sexual inhibition so that the patient was able to live out his sexual fantasies of being sexually dominated. In the course of the therapy, the needs of the patient were better explored. The patient reported that he wanted to feel deeper emotional warmth from his wife and described that she could show him her love in hugging him and listening to his worries more carefully. In situations where the patient felt unloved by his wife, the urge to use cocaine increased. Furthermore, the patient reported that he wanted to be sexually dominated and the very specific sexual fantasy that his wife would leave him at night and have sex with other men but would afterward come back to him. His wife, however, reported that she did not have the desire to have sex with other men and had difficulties in taking the sexually dominant role. The therapist felt that at the core of the patients' problems was the ambivalent situation of the patient withdrawing from his wife and feeling emotional warmth by his wife at the same time. After informing the wife of the patients' needs and helping her learn how to communicate feelings and warmth in the way the patient needed, the barebacking behavior of the patient stopped. Moreover, Mr. R. expressed the motivation not to endanger his wife with potential STIs and HIV, which strengthened the discontinuation of risky sexual behavior. During the course of the therapy, the quantity when using cocaine was

reduced, but the frequency of using increased. However, after a couple of months of therapy, a situation occurred where the patient would take an unusually high dose of cocaine and reported a "nervous breakdown." In the following therapeutic session, it was suggested that the patient would go to a substance dependency clinic, which the patient refused to do. In the same session, the patient openly reported to Mrs. R. that he also felt the need to withdraw from her and asked if he could have a separate room in his house for himself where he could spend some time alone every day. Surprisingly for the patient, the wife agreed. Furthermore, the couple expressed great warmth to each other and decided together that they would work on their difficulties with the goal to maintain the relationship. From then on, the patient would go to "his" room when he felt the need to, the couples' communication seemed to function way better, and they would express warmth at each other. In the following months, Mr. R. still reported the sexual fantasy to be dominated by his wife but also that he stopped the cocaine consumption. The couple is still in therapy to better address the needs of Mrs. R. and to monitor the abstinence from using drugs by Mr. R.

14.3 Clinical Management

To date, there is no standardized procedure on the treatment of comorbid sexual dysfunctions in substance-related disorders, and clinical controlled trials are missing. However, given the large variety of adverse effects of substances on sexual function as described above, there is an urgent need to promote sexual health in individuals with substance use disorders.

There are three types of prevention adapted for sexual dysfunctions and STIs due to substance-related disorders:

- Primary prevention programs aim to prevent sexual dysfunctions and STIs before they occur. Prevention programs in high schools can teach pupils not only that substance use often comes with adverse consequences for the general health but also that the risk of sexual dysfunctions is highly increased.
- Secondary prevention aims at prevention of diseases of infection in risk groups. For example, shared syringes are often used in young adults with nonmedical use of opioids and teaching users that using clean syringes could prevent spreading STIs [22]. Furthermore, distributing condoms in risk groups for STIs (e.g., for sex workers) would state an example for secondary prevention.
- Tertiary prevention aims at softening the impact of ongoing difficulties, e.g., patients with erectile dysfunctions due to chronic alcohol abuse could be helped with sexual therapy programs or PDE-5 inhibitors.

One basic rule in the treatment of sexual dysfunctions is to work with the couple through their problems (if the patient lives in a relationship). The first step in treatment should be a careful anamnesis which includes both sexual function and

substance consumption of the couple. Of interest to clinicians is especially the functionality of substance use. It should be explored which situations and which emotional states lead to substance use by the patient. Moreover, it should be assessed if substance use was initiated as a tool to face sexual dysfunction or as a stimulating or recreational drug.

Some suggestions for clinicians asking about substance use and sexual behavior are as follows:

- In what situations did you use the drug?
- What was the reason for taking the drug?
- What were your emotions like?
- Were you alone or with others when consuming?
- How did the drug affect your sexual desire, arousal, and functioning?
- What is the typical pattern of having sex when taking drugs?
- Can you have sex without taking the drug?

In the treatment of substance use disorders, favorable treatment effects are commonly measured as abstinence [54], and detoxification programs are offered in clinics or in outpatient treatment programs. Recently, harm reduction strategies (e.g., recognizing that risky behavior may continue despite the risk) are considered more important in treatment programs. For example, harm reduction strategies in substance use disorders aim at reducing sexual risky behavior and substance use, when abstinence could not be reached in previous treatments. The treatment of substance-related disorders can include combinations of psychotherapeutic methods and medication. Moreover, it is recommended to start doing sports and activities as this decreases stress and helps with experiencing self-efficacy. If abstinence is reached or substance use is minimized, the sensate focus therapy program may be used [55, 56] to address sexual difficulties. Somatic therapeutic options can be used in the treatment of many sexual dysfunctions, e.g., PDE-5 inhibitors can be used to treat erectile dysfunction. It is important to note that the treatment of sexual dysfunctions should always include both partners of a relationship. Many substances have devastating effects on sexual functioning and cause an enduring impairment of the biological basis of sexual functioning. Even after discontinuation of substance consumption, sexual difficulties may still be present. For example, in a patient that continuously abused cocaine for decades, erectile function may not be restorable even after a longer period of abstinence. In this case, clinicians should help patients to find out a satisfying sexuality given the restraints of a persistent sexual dysfunction. Furthermore, substance abuse may have had negative impact on the relationship that can prevent the couple from having a satisfying sexual life.

14.4 Five Key Messages

- Little experimental and clinical data is available on the effect of substances on sexual functioning and to disentangle direct effects of a substance from other potential factors.

- There is a strong association between substance use and high-risk sexual behaviors, including unprotected intercourse, sexually transmitted diseases, selling sex, and sexually coercive behavior.
- Some substances may have enhancing effects on sexual functioning, but the existence of aphrodisiacs is not empirically supported. Functional sexual enhancing mechanisms may be induced relaxation through these substances as they decrease inhibition or dopaminergic stimulation. However, the use of most substances decreases sexual functioning on an acute and chronic level. Substances with sedative effects (especially opioids) decrease sexual desire. The toxic effects of many other substances (e.g., smoking tobacco) often have disastrous effects on sexual functioning.
- A careful anamnesis should explore motivations for sex-related substance use. Moreover, the potential effects of past substance use in connection to sexual dysfunctions should be explored. The planned therapeutic measures should be adapted to the specific clinical picture explored in the anamnesis.
- There is no standardized therapeutic program on sexual dysfunctions related to substance use disorders. However, often used therapeutic interventions like the sensate focus treatment program and the use of PDE-5 inhibitors may be indicated in sexual difficulties in association with substance use disorders.

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Schizophrenia and Other Psychotic Disorders

15

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15.1 Introduction

Human sexuality is the aspect of the human condition that is manifested as sexual desire or appetite, the associated physiological response patterns, and behaviour which leads to orgasm or at least pleasurable arousal, often between two people, but not infrequently by an individual alone [1]. A commonly used classification of stages in sexual response is the following: sexual desire (thoughts, interest), sexual arousal (feeling sexually excited as well as physiological effects, e.g. erection or lubrication), orgasm (peak in pleasure; mentally as well as physiologically), and resolution/refraction [2].

Systematic, large size studies about sexual function and behaviour in psychotic spectrum disorders are still missing. Questions naturally arise about how patients experience sexuality and sexual function during various psychotic disorders, how they deal with their sexual issues in remission, and while experiencing the adverse effects of drugs or negative symptoms. Since the main concentration is focused on psychosis management, other areas including sexual function and behaviour often remain without attention. Sexual content psychopathology as a part of psychosis regresses by itself because of appropriate psychosis treatment and therefore remains under-researched. Even today, the prevalence of sexual dysfunctions is underestimated by physicians, and spontaneous complaints from patients are uncommon. The understanding of the relationship between sexual function and psychotic disorders enables the selection of an appropriate treatment for sexual dysfunctions and dysfunctional sexual behaviour for each individual [1].

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15.2 Clinical Manifestations

15.2.1 Psychosis and Schizophrenia Spectrum Disorders

The stress vulnerability model integrates various psychological and biological factors to explain the vulnerability for psychosis development. Psychosis is considered as a dynamic process that develops in stages. The construct of a clinical "ultrahigh risk" for psychosis "prodromal" state has evolved to capture the pre-psychotic phase, describing people presenting with potentially prodromal symptoms [3]. Psychosis is usually characterised by positive symptoms reflecting an excess of function with impaired insight and reality testing. Disturbances in perception such as hallucinations and changes in thought content such as delusions are present. Disorganisation is often considered to be a part of positive symptoms in psychosis: disorganised speech, disorganised thinking, and disorganised behaviour including the catatonia phenomenon [4–6].

Currently, two known official classifications of mental disorders, the ICD-10 and DSM-5, distinguish primary psychotic disorders such as schizophrenia spectrum disorders (schizophrenia, schizoaffective, schizotypal (personality), and schizophreniform disorder), acute and transient (brief) psychotic disorder, and delusional disorder from secondary psychosis due to another medical condition and substance/medication induced [5, 7].

Schizophrenia is one of the most well-known psychotic disorders, and the concept of it has a long and changing history. It was common to categorise schizophrenia into subgroups: paranoid, hebephrenic, catatonic, undifferentiated, residual, simple, other, and unspecified. The modern construct presented in the revised version of the official classification system DSM-5 and ICD-11 excluded clinical subtypes of schizophrenia. It was replaced by the symptom specifiers [6, 7]. Schizophrenia is a severe and chronic psychiatric disorder affecting approx. 1% of population, with an onset usually in early adulthood, which causes prolonged disability in the affected person. Schizophrenia has a premorbid phase. Infantilism, autism traits, reticence, pathological fantasy, and unusual interests and activities are common for the premorbid personality of schizophrenia. In the clinical manifestation of schizophrenia, the main phenomenon is specific splitting: newly emerging mental processes (positive symptoms) while at the same time losing—already developed—mental processes (negative symptoms), including personality features. Positive symptoms include persistent hallucinations in any modality, persistent delusions of any kind, distortions of self-experience via passivity phenomena, and the permeability of ego boundaries such as thought insertion, withdrawal, broadcast, as well as disorganised thinking, speech, and motor behaviour. The negative symptoms in schizophrenia include apathy, avolition, anhedonia, affective blunting or flattening, disturbances in emotional communication, and/or cognitive changes. Because of these negative symptoms, people with schizophrenia may have difficulties with everyday tasks, neglect personal hygiene, social integration, and finding a partner [1, 8].

Positive and negative symptoms are common not only in schizophrenia but also in other schizophrenia spectrum disorders. The diagnosis of this spectrum depends on the prevalence, intensity, combination, and duration of the symptoms [5, 6, 8].

15.2.2 Sexual Content Psychopathology in Psychotic Disorders

Sexuality is an integral part of an individual's mental processes. Changes in the integrity of the person's mental processes may impair or even damage the expression of sexuality. Several categories of symptoms and syndromes that manifest in psychotic spectrum disorders and are related to sexual function and performance may be distinguished (Table 15.1).

The consequences of inappropriate psychotic sexual behaviour can cause financial problems directly from the costs for the behaviour or indirectly via decreased productivity; may result in a higher risk of sexually transmitted diseases, infrequent use of contraceptives, and inadequate use of sexual enhancement drugs; may account for genital injury and sexual attacks; may complicate relations between partners; or can cause distress to patients when they deal with the psychological, moral, and physical consequences [1, 9].

Table 15.1 Sexual content psychopathology in psychotic disorders

Condition	Clinical presentation
Changes in the sexual response cycle (sexual dysfunctions)	Hypoactive sexual desire disorder for both sexes
	Female sexual arousal disorder; male erectile dysfunction, priapism
	Female orgasmic disorder; male ejaculation disturbances
	Genital pain for both sexes
Disorder of sensation	Hyperesthesia, senestopathia
Hallucinatory condition related to external and/or internal genitals also sexual function/performance	Hallucinations in any modality. Typical are tactile, somatic, auditory, visual hallucinations
Imagined, false belief (not of delusional intensity)	Dysmorphophobia, hypochondriac ideas
Culture-bound syndromes	Koro and Dhat syndromes
Delusional condition related to external and/or internal genitals also sexual function/performance	Delusions of any kind. Typical are delusion of love, delusional jealousy, delusional changes in sexual identity
	Religious, somatic, hypochondriacal, nihilistic delusion
	Cotard's syndrome
	Delusion of reference, persecution, grandeur; control, and bizarre (permeability of ego boundaries and passivity phenomena)
Hypersexual behaviour (compulsive sexual behaviour/paraphilia-related disorders)	Sexual impulsivity, sexual compulsivity, compulsive masturbation, protracted promiscuity, severe sexual desire incompatibility, sexual harassment, excessive prostitution, pornography addiction, telephone sex and cybersex addiction
Paraphilias and paraphilic disorders	Exhibitionism, frotteurism, voyeurism, fetishism, paedophilia, sexual masochism, sexual sadism, other specified paraphilic disorder

15.2.3 Sexuality, Sexual Function, and Behaviour in the Presence of Schizophrenia Spectrum Disorders

The premorbid personality of schizophrenia patients is often schizoid or schizotypal with few interpersonal relationships and a lack of interest in forming sexual relationships and sexual experience. It may manifest with neurotic and hypochondriacal complaints, dysmorphophobia towards genitals or sexual reactions, and compulsive masturbation with deviant fantasies already in adolescent period [10, 11]. Polymorphic sexual content psychopathology is common during schizotypal disorder. The diagnostic criteria of this disorder in ICD-10 also consider the symptoms of sexual content [5].

The psychotic phenomena in schizophrenia in many cases have a sexual content. Sexual interest in the presence of bizarre sexual ideas or highly abnormal patterns of personal interaction may account for psychotic sexual behaviour with/without aggressive elements up to sexual attacks [1, 10]. Among many diagnostic criteria of paranoid schizophrenia, ICD classification mentions delusions of bodily change or jealousy and hallucinations of sexual or other bodily sensations [5]. Hallucinatory-delusional conditions may include the theme of love, jealousy, various sexual acts, genitals, or sexual identity during acute psychosis. Hallucinations involving the genitals occur in 30% of males and 36% of females; delusions about the genitals changing are present in 20% of males and 24% of females [12, 13]. Twenty-eight percent of 137 patients with schizophrenia or schizoaffective disorders reported sexual problems related to psychotic symptoms. These problems were twofold. On the one hand, a sexual disorder may occur due to sexual content of the patient's thoughts and perceptions. On the other, sexual content can attach meaning to the existing sexual problems [14, 15]. It is important to remember that an individual seldom applies for specialised help because of sexual complaints during acute psychosis. A person in psychosis may not be able to disclose his/her sexual experiences, and mostly they may be concealed.

Hyperesthesia and senestopathia as disorders of sensation may occur in the region of the external/internal genitals (hot/cold sensations, creeping sensation, etc.). Dysmorphophobia describes patients with an imagined physical defect. It can manifest itself as complaints in changes in form, size, colour, turgor of the genitals, and/or appearance of body fluids. The changes are noticeable in a particular part of the body or organ. Often, patients are convinced about the changes of the external/internal genitals such as "shrink", "atrophic", and "dried up". Hypochondriac complaints are unrealistic interpretations of physical signs or sensations as symptoms of serious illness: "I have syphilis", "it is impaired reflex of erection", "I'm impotent". Somatic delusion usually involves the fixed false belief that one's body or organs (genitals) are abnormal, diseased, or changed in some manner: "vagina emits a foul smell". Cotard's syndrome is a delusional condition that one or more of one's organs or body parts are missing, disintegrated, or no longer existing: "there is no more blood". In case of the bodily (somatic) passivity phenomenon, unusual subjective complaints may appear; patients are confident about rough changes/damages of the genitals and/or sexual function, often due to the influence of a higher extra-terrestrial power: "the possibility to get an erection was taken", "reflexes are controlled

by someone". An example of bodily (somatic) passivity phenomenon might be patients' tortured sexual sensations that may lead to an attempt to inflict self-mutilation or even castration. Self-mutilation in the area of genitals may be a result of religious, self-accusation delusions, or delusionally altered sexual identity. Because of the openness of thoughts and the sense of their broadcasting, one may be afraid that everyone around knows about his/her sexual fantasies, sexual acts, or sexual identity as well as orientation, both in terms of gender polarity and in relation to other objects. Auditory hallucinations can manifest themselves as comments towards different issues on sexuality [10, 16].

Sex change or being no longer a man occurs in 27% of schizophrenic males, meanwhile sex change or being no longer a woman appears in 25% of schizophrenic females [12, 13]. Delusions related to sexual identity can be in the case of schizophrenia, and such psychotic manifestation usually regresses after starting antipsychotic medication [10, 16]. Some indications suggest a higher incidence of gender dysphoria among people with schizophrenia than in the general population. The potential links between schizophrenia and identity difficulties can be explained by four hypothetical mechanisms [17]:

1. The vulnerability-stress model suggests that "gender identity confusion" may be a major stressor that increases the probability of developing schizophrenia in predisposed individuals [18].
2. It can be assumed that identity difficulties are a result of the illness itself: the change in the perception of reality triggered by the psychotic process may also affect one's self-image in mental, bodily, and social dimensions [17].
3. Both schizophrenia and gender dysphoria could be explained as neurodevelopmental disorders: neurobiological studies have shown significant similarities between schizophrenia and gender dysphoria groups, suggesting an association of these states with changes in cerebral sexual dimorphism and cerebral lateralisation [19].
4. Schizophrenia-specific deficits of mental function such as cognitive, emotional, and social functioning also impair the processes involved in the formulation of gender identity [19].

Fluctuations in all phases of the sexual response cycle (desire, arousal, orgasm, and resolution) can occur. Sexual function may be either increased or decreased. This is the relationship between increased desire, arousal, and the positive symptoms in schizophrenia with a tendency to decreasing desire over time in association with the improvement of symptoms [16, 20]. At least one sexual dysfunction was reported in 82% of women and 74% of men suffering from schizophrenia or schizoaffective disorders in a sample of 137 patients (56 women and 81 men) [14]. Sexual dysfunction occurred in 50% of men and 37% of women (46% of the sample) in the sample of 243 adult and sexually active patients of both sexes (men accounted for 71% of the group) with diagnosed psychosis (71% of whom were diagnosed with schizophrenia) [21]. In a sample of 636 patients, 38.1% of the subjects experienced some type of sexual dysfunction (44.6% of men and 25.0% of women). In men, the most frequent sexual dysfunctions were erectile dysfunction (30.8%) and decreased sexual desire (30.8%), whereas in women, the most frequent

sexual problem was reduced sexual desire (23.8%) [22]. According to research data, in a sample of 111 male outpatients with schizophrenia, 97.1% of the subjects had problems with satisfaction in intercourse, 95.5% erectile dysfunction, 93.7% sexual desire disorders, 88.6% problems with the general sexual satisfaction, and 78.4% orgasmic disorders [23].

The biopsychosocial model is the most suitable explanation for the development of sexual dysfunctions. There are various aspects that need to be considered: (1) the primary illness with changes in the dopamine system; (2) concomitant medications, especially those with effects on the pituitary hormonal axis; (3) the impact of comorbid psychiatric and physical diseases; (4) previous sexual experience and relationship; and (5) social competence issues [1, 10, 24, 25].

It is hypothesised that schizophrenia is characterised by abnormally low prefrontal dopamine activity (causing deficit symptoms) leading to excessive dopamine activity in mesolimbic dopamine neurons (causing positive symptoms) [26]. Dopamine is also an important biological factor for the physiology and psychology of sexual function. Dopamine is a neurotransmitter in brain areas and circuits involved in attention and salience of stimuli and in experiencing motivation and rewards, including sexual motivation (desire) and sexual reward. Sexual reward is experienced primarily during orgasm, but other stages of sexual functioning also seem to be involved in reward-related learning [2] (for details see Chap. 7). Hypodopaminergic activity in the frontal cortex can directly severely impair the ability to enjoy sexual life [11] and may also cause sexual function impairment via negative symptoms in schizophrenia. Negative symptoms such as lack of interest and anhedonia, blunted affect, a loss of impulse control, low social confidence, or difficulty starting and maintaining social or intimate relations can negatively affect sexual function [11, 25].

Because of the postsynaptic dopamine antagonism of antipsychotics, sexual desire, arousal, and ability to experience pleasure can be decreased [27, 28]. Prolactin is another important biological factor that is likely to be involved in patients treated with antipsychotics [27]. Elevated prolactin levels may explain endocrine side effects on sexual function—such as reduced capacity to create sexual fantasies [29], decreased desire and arousal, erectile, orgasmic, and ejaculatory dysfunction [30]. Besides having an affinity for the dopamine receptors and effects on prolactin elevation, antipsychotics interact with many other neurotransmitter systems—such as serotonergic, noradrenergic, histaminic, and cholinergic/muscarinic—in the brain and other parts of the body as the genitalia [31, 32]. The effects of antipsychotics on other neurotransmitter systems are associated with a decreased ability to achieve arousal or orgasm [32]. Sedation, weight gain, reduced mobility because of extrapyramidal effects and tardive dyskinesia, and vegetative side effects of antipsychotics [25] have an indirect effect on the sexual function as well (also see Chap. 24). These patients face difficulties in establishing and maintaining relationships not only as a result of recurrent psychotic episodes and negative symptoms but also because of such side effects of antipsychotics [11].

Comorbidity with other psychiatric conditions is also common throughout the course of the schizophrenia spectrum illness, with the estimated prevalence being 30–75% for depressive symptoms and depressive disorders [33, 34], 29% for

post-traumatic stress disorder, 23% for obsessive-compulsive disorders, and 15% for panic disorder [35]. The reported prevalence rate of personality disorders in psychosis is about 40%, but it varies significantly from 4.5 to 100% depending on the country, study type, and the diagnostic tools used for the evaluation of personality disorders [36]. People experiencing psychotic disorders more often have comorbid substance abuse disorders with the prevalence between 25 and 40%, most common drugs of abuse being nicotine, alcohol, and cannabis [37–39]. People with schizophrenia are at a greater risk of obesity, Type 2 diabetes, dyslipidaemia, and hypertension compared to the general population. In addition, smoking, poor diet, reduced physical activity, alcohol or drug abuse, and side effects of antipsychotics are prevalent in people with schizophrenia and contribute to those risks [40, 41]. An increased incidence of chronic medical illnesses and comorbidity with psychiatric conditions during psychotic disorders contributes to the development and persistence of sexual dysfunctions [1].

The quality of studies of the prevalence and types of sexual dysfunctions in patients with schizophrenia and the effect of antipsychotic medication has shown many methodological differences and large variations. The frequency of sexual dysfunction was high in patients treated with risperidone (43.2%), haloperidol (38.1%), as well as with olanzapine (35.3%) and quetiapine (18.2%) [22]. A review comparing different antipsychotics with regard to sexual dysfunction concluded that risperidone induced sexual dysfunction most frequently, followed by typical antipsychotics (haloperidol), olanzapine, quetiapine, and clozapine, while the lowest frequency was found for aripiprazole [42, 43]. Amisulpride, ziprasidone, and paliperidone seem to have a similar effect on the sexual function to that of typical (first generation) antipsychotics and risperidone [15, 43] (see Chap. 24 for more details).

Sexual desire. Patients with schizophrenia reported a significantly higher prevalence of reduction in sexual desire versus unaffected controls, and sexual desire was reduced in patients irrespective of antipsychotic use [24]. Patients using antipsychotics experienced a reduction in sexual desire ranging from 12 to 38% [44].

Sexual arousal. Patients using antipsychotics experienced dysfunction of arousal (such as erection and lubrication) ranging from 7 to 46% [44]. Studies suggest that women report diminished lubrication in frequencies that are comparable to the frequency of erectile dysfunction reported by men treated with the same antipsychotics [27]. Patients who used antipsychotics experienced significantly more erection disturbances both during sexual intercourse and during masturbation compared to those who did not undergo antipsychotic therapy [24]. Priapism related to treatment with antipsychotics is a rarely occurring condition and has occurred only in case reports [16, 45].

Orgasm. 4–49% of patients using antipsychotics experienced orgasm dysfunctions [44]. Ejaculation disturbances consisted of a change in the consistence or the volume of the ejaculate [16]; it occurred in 8–58% in patients treated with antipsychotics [44]. Women reported orgasmic dysfunction including difficulty achieving orgasm, changes in the quality of orgasm, and anorgasmia. Spontaneous ejaculation [32] and pain during orgasm were also reported in a few studies [46, 47].

People with schizophrenia are engaged in less overall sexual activity of any type, yet they are more likely to experience autoerotic behaviour [25, 48]: over 75% of men have masturbatory activity [49]. However, most patients with schizophrenia

show an interest in sex that differs little from that in the general population [50]. Furthermore, some patients have shown an increased sexual desire to engage in intimate relationships over time, which may be seen in the context of improved psychopathology due to the treatment [51].

Social isolation and impaired impulse control may be the basis for paraphilic behaviours in psychotic disorders. The prevalence rate of paraphilic and psychotic disorders has been reported between 1.7 and 16% [52]. In a study on sexually offensive behaviour, it was found that fully two-thirds of the sex offenders had a diagnosis of schizophrenia or schizoaffective disorder and many had a comorbid substance use disorder. The sexually offensive behaviour included rape, lewd and lascivious acts, and sodomy. Of the 42 offenders, in 50% of cases, the victims were children [53]. Dynamic transformation of paraphilia (developing of new forms of paraphilia in addition to the already existing ones) is related to the psychotic symptoms and an increase of negative symptoms in schizophrenia: a combination between paedophilia, exhibitionism, and voyeurism in schizophrenia with persistent but nonprogressive negative symptoms and necrophilia in schizophrenia with progressive negative symptoms has been reported [54]. Sexual acts with animals and fantasising about animalistic objects have been reported in relation with psychosis [55]. It has also been reported that psychosis may increase the risk of recurrent sexually offensive behaviour in individuals who are prone to such behaviour [56]. It is proposed that individuals with schizophrenia spectrum disorders who are engaged in sexually offensive activities should be classified into broad groups: (1) those with a pre-existing paraphilia; (2) those whose deviant sexuality arises in the context of illness and/or its treatment; and (3) those whose deviant sexuality is one manifestation of more generalised antisocial behaviour. In the cases, the paraphilia is secondary to the psychotic illness and subsides when the psychosis is successfully treated, whilst in other cases, the paraphilia is independent of the psychosis and may need treatment in its own right [57].

15.2.4 Specific sexual content delusions

Delusional disorder is characterised by well-circumscribed delusions without schizophreniform symptoms [8]. A person may have a single delusion or more closely related ones, which are linked to a paranoid system. The function level is therefore relatively good, with the exception of areas drawn into delusions [5]. Delusion of love (erotomania/De Clerambault's syndrome) and delusional jealousy (Othello syndrome) as persistent mental disorders are well-known but rare psychiatric conditions. The prevalence is estimated to be less than 0.1% [58]. About 246 cases of erotomania worldwide are known from a review published for the period of 1900–2000 [59]. It is reported that the prevalence of delusional jealousy in 8134 psychiatric in-patients was 1.1% [60]. It is likely that those conditions are often not recognised as a distinct syndrome and are consequently classified under one of the larger psychiatric categories, nor do all the persons with this syndrome come to the attention of mental health professionals [61]. Delusions of love and jealousy as well as more specific culture-bound syndromes related to genitalia and sexual function are summarised in Table 15.2.

Table 15.2 Specific sexual content delusions

Condition	Symptoms	Comments
Delusion of love	Delusional idea that a person whom she/he considers to be of higher social and/or professional standing is in love with her/him	Usually occurs in a young/middle-aged woman
	It can be accompanied by comorbid paraphilia or hypersexual behaviour and stalking behaviour	The pure form existed alone as the whole psychosis, remained unchanged or fixed following its sudden onset
	The syndrome may persist for a period of a few weeks to a few months in a recurrent form and may be replaced by a similar delusion about another person. In the fixed form, it may persist for several years [9, 61]	The secondary form exists in association with other psychiatric states—most often, paranoid schizophrenia [9, 61]
Delusional jealousy	It is marked by suspecting a faithful partner of sexual infidelity, with accompanying jealousy, attempts at monitoring and control, and sometimes violence [62]	The syndrome can appear in association with organic psychoses, alcohol psychosis because of long-term alcohol consumption, schizophrenia, affective disorder, and a pure paranoid disorder
	Reduced sexual function such as real or imaginary hypophallism may give rise to feelings of inferiority and lead to the development of this syndrome [63] Sado-masochist behaviour—moral and physical torture of the partners, self-torture, high sexual excitation with decreased possibilities in the sexual function, and perversions have been mostly reported to be of alcoholic aetiopathology [64]	The syndrome is seen in both sexes, but women are more likely to suffer from this syndrome in cases of schizophrenia, while men—in cases of alcohol psychosis [60]
Dhat syndrome	The syndrome is characterised by severe anxiety and hypochondriacal concerns associated with the discharge of semen, whitish discoloration of the urine, and feelings of weakness and exhaustion	It is a culture-bound syndrome
	The hypochondriacal fear about some irreversible harm to the patient's body (permanent impotency or the shrinking of the size of the penis) is manifested [65]	Somatoform, hypochondriacal, dysmorphophobic, and delusional disorder occur along with this syndrome [65]
Koro syndrome	It is characterised by acute anxiety and a deep-seated fear of the shrinkage of the penis and its ultimate retraction into the abdomen, which will cause death	It is a culture-bound syndrome
	The dysmorphic quality of own-penis perception such as the decreased penis length is discussed in relation to Koro vulnerability [66]	It is has been reported in association with various somatic, psychiatric, and drug-induced disorders [66]

15.2.5 Sexuality, Sexual Function, and Behaviour in the Presence of Other Psychotic Disorders

Psychosis can occur during other psychiatric and somatic conditions than the schizophrenic spectrum. Sexual behaviour and function in elderly psychosis as a very late onset of schizophrenia-like psychosis (previously known as paraphrenia), psychosis induced by substance abuse, psychosis in affective disorders, and psychosis as a post-traumatic condition or because of neurodegenerative disorders are presented in Table 15.3.

Table 15.3 Sexual function and the other psychotic conditions

Condition	Comments
Psychosis in the elderly	Functional psychosis in the elderly; the onset occurs after the age of 60 The patient group is mainly single elderly women; many have never been married, with poor sexual functioning The content of positive symptoms is related to housing—mostly about imaginary people in the environment; "outgroups" such as criminals, prostitutes, etc.; often sexual undertones, possibly grotesque sexual content of rape, sexual harassment, or stalking [8, 67]
Psychosis in affective disorders	Increased or inhibited sexual activity may occur in unipolar or bipolar depression/mania because of changes in mood and psychomotor activity [1] Increased sexual drive and sexual impulsivity with the clinical picture of paraphilia-related disorders are quite common in mania with psychosis [9, 10] Sexual complaints due to depressive psychosis are related to sadness, grief, self-accusation, delusion of sinfulness, hypochondria, nihilism, as well as Cotard's syndrome Sexual activity tends to normalise both in unipolar and bipolar affective disorder in the remission phase [10]
Psychosis related to a post-traumatic condition	The odds of the development of a psychotic disorder or positive psychotic symptoms in adolescents and adults with histories of traumatic life events range between 2.78 and 11.50 [3] Impulsive, unsafe, risky, and also autoerotic sexual behaviour can appear as an expression of sexual behaviour in psychosis of post-traumatic etiopathology Sexual dysfunctions and dysfunctional relationships (fear of intimacy and an inability to trust the partner) may also occur in chronic psychosis as a post-traumatic condition after an aggressive, autonomy-violating relationship
Psychosis related to substance abuse	Cannabis, stimulants, or hallucinogens can cause psychosis by intoxication, while alcohol causes psychosis as a part of the withdrawal syndrome (delirium) or chronic hallucinosis Typical behavioural aberrations such as high energy, a strong desire without erection, or prolonged sexual intercourse without ejaculation were found to occur due to stimulants [68] A higher rate of paraphilic behaviour and hypersexual behaviour was associated with a substance-induced psychotic disorder [53, 69] Impaired sexual function during chronic alcohol consumption may provoke delusion of jealousy and/or paraphilic behaviour [64]

Table 15.3 (continued)

Condition	Comments
Organic (secondary) psychosis due to a neurodegenerative condition	The incidence of psychotic symptoms in different types of dementia is approximately 70% Between typical delusions of financial loss or deceit, delusions of jealousy and love may occur. Hypersexual and autoerotic behaviour has been reported as well The delusion of love was reported in the early stage of Alzheimer's disease and vascular dementia Hypersexual behaviour and delusional jealousy may occur independently in patients with Parkinson's disease who are on dopamine agonist therapy [4, 70]

15.3 Clinical Management

Due to the complexity and the biopsychosocial nature of human sexual disorders, a comprehensive, broad-spectrum evaluation and treatment approach must be applied for individuals with psychotic disorders. A reliable diagnosis should be provided that has differentiated the cause of the dysfunction together with the patient's medical history with attention to risk factors, which also evaluated basic laboratory tests results. Therapy should be targeted specifically to sexual content psychopathology, saving and maintaining individual's normal sexual function, and oriented to interpersonal relationships and patient's expectations [1, 11]. Several particular steps can be distinguished in dealing with sexuality concerns during psychotic disorders: (1) stabilisation of the psychotic condition; (2) assessment of sexual function; (3) application of psychosexual counselling; and (4) adjustment of disorder-specific treatment.

15.3.1 Stabilisation of the Psychotic Condition

Stabilisation of the psychotic condition should be performed first because of the urgency of this condition. It is important to assess and eliminate possible causes of the psychosis (primary or secondary psychosis due to substance abuse or somatic/medication background). The risk assessment for aggression, self-harm, and suicide attempts must be carried out. Urgent intervention with medications, psychotherapy, or hospitalisation must be evaluated and carried out. Comorbid conditions in psychosis have a negative effect and should be a key issue in the follow-up and treatment of patients. Depending on the predominant syndromes in psychosis, treatment with typical/atypical antipsychotic medications as monotherapy or in combination with other psychotropic medications (typical/atypical antipsychotics, benzodiazepines, antidepressants, or mood stabilisers) could be applied. The dose should be chosen individually according to the prevailing psychopathology, the effect, and tolerance. Inappropriate, bizarre sexual performance as the part of hallucinatory-delusional syndrome can be treated in this phase.

Case Report 1

A 33-year-old woman presented to a sexual medicine specialist for consultation concerning her sexual orientation. On arrival, she expressed apprehensions and doubts concerning a possible change in her sexual orientation and uncertainty about further relationships with her husband.

Current status. During the consultation, the woman expressed doubts about her sexual orientation and stated that all the surrounding people could see and knew that she was homosexual, which made her feel very ashamed and uncertain of how to interact with her children and her husband. She had always been certain she was heterosexual. To check on her sexual orientation, she masturbated several times while fantasising about different scenarios, which exacerbated the feelings of guilt and dissatisfaction. The interview revealed more complaints: the woman stated that she felt vibrations in her body and sometimes felt that her body was sensitive to "bad" energies radiated by the environment, which made her feel tired at the end of the day. During the course of the consultation, the real cause of anxiety about her sexual orientation emerged: the woman admitted hearing voices that told her she was homosexual. Those voices blamed and shamed her. Gradually, her sleep and appetite became impaired, and the sensations in the body and the voices speaking about her homosexuality became tiring, preventing her from focusing at home or at work.

History of the present illness. The woman is married, has two small children, and is employed. She had not experienced any sexual impairment when living in partnership. She could not recall having any doubts about her sexual orientation during her psychosexual development. The history of illness also showed that at the age of 24, the patient developed psychosis, and after this episode, paranoid schizophrenia was diagnosed. The optimisation of the treatment with antipsychotics resulted in the remission of the psychotic symptoms, and the woman functioned sufficiently well both at work, at home, and in her sexual relationships with her partner. Since the woman was feeling well, she thought she had completely recovered and thus discontinued medication use.

Evaluation. During the consultation, the patient's condition was evaluated as a relapse of psychosis provoked by the discontinuation of pharmacotherapy. The risk of suicidal tendencies or aggressiveness was evaluated as low.

A combined treatment was applied.

- Psychoeducation about paranoid schizophrenia and the risk associated with the discontinuation of the treatment.
- Psychoeducation about doubts concerning one's sexual orientation due to the influence of voices appearing because of the exacerbation of the main disease. An analysis (performed together with the patient) of the possibility that upon the initiation of treatment with antipsychotics and disappearance of the commenting voices, her doubts concerning her sexual orientation would disappear as well.

- Psychosexual education about an individual's psychosexual development (using library resources).
- Treatment with atypical antipsychotic was initiated, starting with a minimal dose: olanzapine 5 mg. The dose was gradually increased, evaluating the risk-benefit ratio. A positive effect on the symptoms of psychosis was observed after increasing the dose to 15 mg/day. The voices commenting about the patient's sexual orientation and other psychotic symptoms gradually disappeared.
- Prolactin concentration was evaluated at baseline, and follow-up evaluations are planned in case of signs of hyperprolactinemia.

15.3.2 Assessmentof Sexual Function

Focus on an individual's sexual function after stabilisation of acute psychosis onset must be provided. Desirable conditions are sufficient insight and collaboration, as well as the patients' consent. Psychosexual development, premorbid sexual function, early psychotrauma, sexual interest and sexual response changes, evaluation of triggering situations, and relationship issues must be assessed. The following should be considered: educational and religious factors, sexual attitudes, sexual thoughts and fantasies, sexual beliefs, problems derived from the attitude of the sexual partner, and the partner relationship itself in the sexual history of a patient as well. Direct and indirect effects of psychosis symptoms in the primary psychiatric disorder, comorbid psychiatric illness, iatrogenic effects of treatment, and comorbid physical illness must be considered in this evaluation process [11]. Spontaneous reporting shows very low rates of sexual dysfunctions, whereas reports increased over 46% when questionnaires for sexual functioning were used [21]. To improve the reported rates of sexual dysfunctions, reliable and specific questionnaires are suggested, such as the Female Sexual Function Index (FSFI) for females [71], the International Index of Erectile Function (IIEF) for males [72], or the Antipsychotics and Sexual Functioning Questionnaire (ASFQ) for the evaluation of the influence of antipsychotics on sexual performance [73].

15.3.3 Psychosexual Counselling Approaches

Psychosexual counselling strategies include individual and couple psychosexual education. Psychosexual education has a very important mission in patients and their partners. The goals are the following: (1) to destigmatise individuals with psychotic disorders; (2) normalise the understanding about sexual function/performances during mental illness; (3) improve acceptance of one's own sexuality and to their integrate sexuality and psychopathology diagnosis; and (4) change attitudes. The main focus in this counselling is to explain a patient's sexual function and dysfunction within the biopsychosocial context of his/her illness and life experience as well as to provide knowledge concerning the therapeutic targets (the impact of

affect changes, positive and negative symptoms, and side effects of medications on sexual response and performance) both for the patient and for the partner. Couples should know that there are various legitimate motivations for being sexual without adding performance pressures. The information and appropriate reassurance about the potential for stimulated "responsive" desire, even if the patient has no spontaneous sexual urges, must be accentuated [74]. Addressing modifiable risks factors such as smoking, substance abuse, obesity, diet, and exercise should be taken into account for better management of sex life. Family planning and contraceptive counselling addressing patient concerns should be incorporated into the treatment plan for people with schizophrenia or other psychotic disorders [1].

15.3.4 Disorder-Specific Treatment Approaches

The goals of disorder-specific treatment are the following: (1) restoration of lasting and satisfying sexual function; (2) maximisation of remaining capacity; (3) preservation of improved or sufficiently individually normalised capacity of sexual function; and (4) adaptation to residual limitations by utilising specialised therapies, including partner support [74, 75]. A clinician should offer detailed and concrete suggestions/therapy after clinical evaluation. An appropriate treatment for sexual content psychopathology of individuals with psychotic spectrum disturbances should be applied. Bizarre and inappropriate sexual behaviour during psychosis because of the hallucinatory-delusional syndrome with sexual themes should be regulated with appropriate treatment with antipsychotics. Sufficient treatment results in the regression of sexual content psychopathology along with psychotic symptoms. Optimisation of medications for each individual could be recommended: monotherapy instead of polytherapy or selection of an antipsychotic drug with fewer detrimental effects on sexual functioning. A comparison of different antipsychotics showed high frequencies of sexual dysfunction for risperidone and typical antipsychotics and lower frequencies for clozapine, olanzapine, quetiapine, and aripiprazole. Lowering the dose of antipsychotic or switching to an antipsychotic with fewer harmful effects on sexual functioning is recommended for those who develop sexual dysfunctions during treatment with antipsychotics. For the switching strategy, it is recommended to use an antipsychotic with fewer harmful effects on sexual functioning—such as aripiprazole, olanzapine, quetiapine, or ziprasidone, especially for sexually active patients [16].

Adjunctive therapy with dopamine agonists (cabergoline or amantadine) or aripiprazole is recommended in the case of hyperprolactinemia [16, 76]. The risk of psychiatric symptom exacerbation when applying any of these treatment options should be evaluated in each individual patient [16]. However, conservative actions should be taken first, especially for patients who have been difficult to stabilise on antipsychotic medications and may be likely to have side effects or exacerbation of symptoms [44]. For erectile dysfunction, adjunctive treatment with a phosphodiesterase-5 inhibitor (PDE5) like sildenafil, vardenafil, avanafil, or tadalafil is recommended [16, 77]. Sexual aids such as lubricants and mechanical tools such as vacuum devices or vibrators could be used as appropriate [1, 9, 11]. Individual and/

or couple therapy in relation with dominant symptoms of psychotic disorders should be offered. The following is recommended: cognitive behaviour therapy for maladaptive thoughts and problematic behaviour; psychodynamic therapy in case of conflicts in the development stages from early life; mindfulness for sexual anxiety, catastrophizing, and trauma treatment; psychomotor physiotherapy focuses on awareness and a change of tension and its patterns in the body and increases familiarity and connection to own body and experiences; couple therapy for changing attitudes and expectations, for learning openness to alternative sexual activity, and for reducing physical stress or discomfort; and individual or couple sex therapy to apply concrete individual exercises, positioning options, or strategies [1, 9, 11].

Case Report 2

A 52-year-old man presented to a sexual medicine specialist for a consultation concerning insufficient erection. The man stated that because of his poor erection, his wife was unfaithful to him. He said this was not the first time, and thus he wanted to solve that sexual problem. His conviction that his wife was unfaithful was based on her strange behaviour, being secretive, and refusal to have sex. He also suspected that his wife had infected him with a sexually transmitted disease because his temperature elevated in the evenings.

Current status. During the consultation, the individual was angry, tense, irritable, and distrustful. He was speaking loudly and continuously, becoming irritable upon specific questions from the specialist. The man denied using alcohol. He stated that he had recently visited a urologist and had undergone ultrasonographic evaluation of penile blood circulation because of this complaint. The evaluation revealed no impairment. The man stated that his family physician had performed his blood analysis. The patient was angry with his family physician for suggesting taking haloperidol. He said he could not comprehend how this drug would solve his sexual problems. The man seemed quite reluctant to talk about the circumstances associated with haloperidol use and stated that he had been prescribed this drug "for depression". He asked not to focus on his mental status and said he was "normal".

History of the present illness. Objective data about the patient's previous mental disorders obtained from his family physician: the patient has had paranoid schizophrenia for 32 years. Psychoses begin with delusions of infidelity, persecution of the wife, and collection of "evidence" against her. Subsequently, the delusion becomes systematised to form world conspiracy theories, involving the patient himself. The patient was admitted to mental hospitals several times. Various combinations of antipsychotics were applied—mostly typical antipsychotics or their combinations with tranquilisers. Their side effect on the sexual function manifested itself via decreased desire and insufficient erection and ejaculation, which resulted in the patient's predisposition to discontinue the treatment. Laboratory tests: no changes in sex hormone or thyroid hormone profiles; moderately increased total cholesterol and low-density lipoprotein concentrations; normal concentration of prolactin; and normal

levels of glycated haemoglobin (HBbA1c). Renal and hepatic functions—nothing abnormal detected. Objective history of the illness obtained from the wife: the wife confirmed that the husband has had a psychotic disorder for many years. He has no delusions while taking medicines, but he is continuously worried about weakening sexual function, which he blames on the medications and discontinues their use without consulting the physician. The wife has noticed that antipsychotic medications have an inhibitory effect on the husband's psychomotor function; during sexual intercourse, the husband becomes anxious, irritable, or even angry, and even if the intercourse is successful, it does not bring satisfaction to either partner. The woman stated that when her husband discontinues the treatment, he becomes hypersexual, he wants frequent intercourse, and both erection and ejaculation are normal. During this stage, the wife's refusal to have sexual intercourse strengthens his paranoid suspicions about the wife's unfaithfulness. The wife denies the presence of any physical or sexual violence.

Evaluation. During the consultation, the patient's condition was evaluated as a relapse of psychosis provoked by the discontinuation of pharmacotherapy. The risk of suicidal tendencies was evaluated as low. The level of aggression was slightly increased, but no additional measures have been taken.

A combined treatment was applied.

- Psychoeducation about the relapse of paranoid schizophrenia provoked by the discontinuation of treatment.
- An analysis of the possibility for selecting atypical antipsychotic with a lower risk of sexual dysfunction, performed together with the patient and his partner.
- Treatment with aripiprazole was initiated, the starting dose being the minimal therapeutic dose of 10 mg in his case. The dose was gradually increased, evaluating the risk-benefit ratio. A positive effect on the symptoms of psychosis was observed after increasing the dose to 30 mg/day. The administration of this medication did not result in any psychomotor inhibition phenomena or a negative effect on sexual desire, erection, or ejaculation, which reduced the risk of treatment discontinuation.
- Psychosexual education of the couple about sexual function when one of the partners has a mental disorder and is using psychotropic medications. Discussion with the couple about their expectations and possibilities and about each partner's individual needs. A survey of the possibilities for creating additional intimacy in the environment prior to the planned intercourse, with recommendations of a prolonged prelude with caresses, which would create the atmosphere of calmness, relaxation, and trust.
- Modification of risk factors such as elevated total cholesterol and low-density lipoprotein levels.
- Follow-up of prolactin concentration in the future, in case of signs of hyperprolactinemia.

15.4 Key Messages

- Sexual content psychopathology in the structure of psychotic disorders can manifest as a hallucinatory-delusional condition with content theme about love, jealousy, sexual acts, genitals, sexual identity, as well as hypersexual behaviour and paraphilic behaviour.
- Positive and negative symptoms in psychotic disorders, comorbid mental or medical conditions, and treatment with antipsychotics alone or in combination may contribute to the development of sexual dysfunctions and sexual relationship difficulties.
- Stabilisation of the psychotic condition, assessment of the sexual function, application of psychosexual counselling, and adjustment of disorder-specific treatment are several particular steps in dealing with sexuality-related concerns during psychotic disorders.
- Destigmatisation of individuals with psychotic disorders, normalisation of the understanding about sexual function/performances during mental illness, improvement of the acceptance of one's own sexuality, integration of sexuality and psychopathology, and alteration of attitudes are the main goals of psychosexual counselling.
- The main goals of the combined treatment are the following: the restoration, the maximisation, the preservation, and the adaptation of the residual limitations for sufficiently satisfactory sexual function.
- Optimisation of medications for each individual could be recommended: monotherapy instead of polytherapy, selection of an antipsychotic drug with fewer negative effects on sexual functioning, lowering the dose or switching to an antipsychotic with fewer harmful effects on sexual functioning, adjunctive therapy with dopamine agonists or aripiprazole in case of drug-induced hyperprolactinemia, and use of PDE5 inhibitors in case of erectile dysfunction. In addition, sexual aids such as lubricants or mechanical tools could be used.

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Depressive Disorders

16

Ana Luísa Quinta Gomes and Pedro J. Nobre

16.1 Introduction

Depressive disorders are highly prevalent and disabling conditions affecting millions of men and women worldwide [1]. The World Health Organization estimates that more than 300 million people around the world are affected by depression and they recognize it as the leading cause of disability worldwide. Clinical depression is also recognized as an important public health concern given its recurrence, debilitating course, and considerable functional impairment across numerous areas of individual's functioning (familiar, social, professional). The typical clinical presentation of depression includes the presence of depressed mood or the loss of interest or pleasure in individual's activities, and a range of additional physiological, motor, motivational, and cognitive symptoms may also be present (e.g., alterations in psychomotor activity, energy levels, appetite or weight, sleep, and feelings of worthlessness and suicidal ideation) [2, 3]. However, assigning a clinical diagnosis of depression may be challenging in some cases given its heterogeneous clinical presentation (Table 16.1).

Sexual function and sexual behavior are also frequently affected in individuals experiencing mild to severe depressive symptoms. The constellation of symptoms resulting from long-term and untreated sexual problems in a patient suffering with depression may be expected to further deteriorate the existing difficulties in overall spheres of the individual's life and to contribute to lowered self-esteem, social withdrawal, loss of emotional and sexual intimacy with a partner, and, ultimately, to a reduced perception of overall well-being and quality of life. Despite growing awareness about the negative impact of sexual impairment in depressed individuals, sexual health is still a frequently neglected dimension in medical care.

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Table 16.1 Summary of depressive disorders

Category	Clinical features
Disruptive mood dysregulation disorder	Persistent irritability and frequent episodes of extreme behavioral dyscontrol over at least 1 year, in children 7–18 years of age (with no more than 3 months symptom-free)
Major depressive disorder	Occurrence of at least one major depressive episode (2-week duration).[a] No history of mania or hypomania
Persistent depressive disorder (dysthymia)	Depressed mood continues for at least 2 years in adults or 1 year in children (with no more than 2 months symptom-free)
Premenstrual dysphoric disorder	Mood lability, irritability, dysphoria, and anxiety occurring before the onset of menses. Improving of symptoms within a few days of menstruation and minimal or no symptoms following menstruation
Substance/medication-induced depressive disorder	Depressed mood during or soon after substance intoxication or withdrawal or after exposure to a medication
Depressive disorder due to another medical condition	Depressed mood thought to be related to the direct physiological effects of another medical condition
Other specified depressive disorder/unspecified depressive disorder	Depressive disorder or the presence of depressive symptoms that do not meet the full criteria for any of the disorders in the depressive disorders diagnostic class

[a]For diagnostic purposes, a major depressive episode is characterized by persistent depressive mood or the loss of interest or pleasure, for at least 2 weeks, accompanied by other cognitive, behavioral, or neurovegetative symptoms (changes in appetite, weight, and sleep, decreased energy, suicidal ideation, feelings of worthlessness, problems in concentrating) that cause significant distress in important areas of individuals' functioning

16.2 Clinical Manifestations of Depression and Sexual Functioning

Sexual health is an important dimension of global health and is strongly related to the perception of well-being and quality of life [4] (see Box 16.1). However, the experience of a healthy and fulfilling sex life may be compromised when difficulties in sexual functioning arise. Sexual problems refer to a wide range of conditions affecting sexual response in such a way that prevents the individual or a couple from enjoying sexual activity. Clinical diagnosis of sexual dysfunction should, however, be reserved for situations where the persistent and recurrent experience of such difficulties over time causes significant personal distress and impacts individual's ability to respond sexually or to experience sexual pleasure [2, 3].

Box 16.1 WHO Sexual Health Definition

Sexual health is a state of physical, emotional, mental and social well-being in relation to sexuality; it is not merely the absence of disease, dysfunction or infirmity. Sexual health requires a positive and respectful approach to sexuality and sexual relationships, as well as the possibility of having pleasurable and safe sexual experiences, free of coercion, discrimination and violence. For sexual health to be attained and maintained, the sexual rights of all persons must be respected, protected and fulfilled. *World Health Organization, 2006*

The complex and multifactorial relationship between depression and sexual functioning has become a topic of increasing interest in sexual medicine for the past several decades. There is a considerable body of research demonstrating that the experience of depressed mood is associated with low sexual desire and arousal dysfunction, erectile dysfunction, premature ejaculation, and overall lower sexual functioning in men and women [5–11]. Higher levels of depressive symptoms have also been associated with diminished sexual thoughts and orgasmic function and general sexual response [6–14]; and lower levels of sexual satisfaction have been found in patients with co-occurring depression and sexual dysfunction [15]. The high comorbidity found among sexual problems and depression suggests that both conditions may share a similar psychological etiology. According to Nobre's cognitive-emotional model of sexual dysfunctions [16], sexual problems result from the integrated influence of general dispositional variables such as neuroticism, high negative trait affect, and low positive trait affect, the same etiological dimensions that have been consistently associated with depressive disorders [17]. Such general trait variables are thought to interact with dysfunctional beliefs in assigning meaning to situations and have an important role in activating the cognitive schemas congruent with the particular life event. For example, during a negative sexual event (e.g., erection loss during sexual activity with a partner), negative cognitive schemas are activated, and a particular pattern of cognitive and emotional responses will emerge. As a result, a cascade of negative automatic thoughts associated with failure anticipation and related consequences (e.g., "I'm a failure", "My partner will abandon me", "I will never be sexually competent again"), along with congruent negative emotional responses of sadness, lack of pleasure, and satisfaction, would arise. Such cognitive and emotional responses prevent the individual from focusing attention on erotic and sexual stimuli, contributing to the experience of a significant decrease in sexual arousal and sexual response (Fig. 16.1). A similar pattern of responses occurs during depressive states, in important areas of the individual's functioning.

Given the high comorbidity among sexual problems and depression, it is conceivable that, under certain circumstances, depressive symptoms act as an important precipitating factor for sexual problems, but the psychosocial distress associated with the recurrent experience of sexual problems (e.g., loss of sexual interest or desire, arousal problems, erectile problems) may also be an important cause of depressive mood and contribute to the intensification of depression (further exacerbated by the sexual side effects of antidepressant medication; see Table 16.2) [15]. Therefore, patients presenting sexual problems should be routinely screened for the presence and severity of depressive symptoms, and patients diagnosed with depression should be carefully assessed regarding sexual functioning in order to early detect and receive adequate and effective treatment for both conditions. In most cases, a combined treatment for sexual problems and concomitant mood disorders can be safely and effectively initiated.

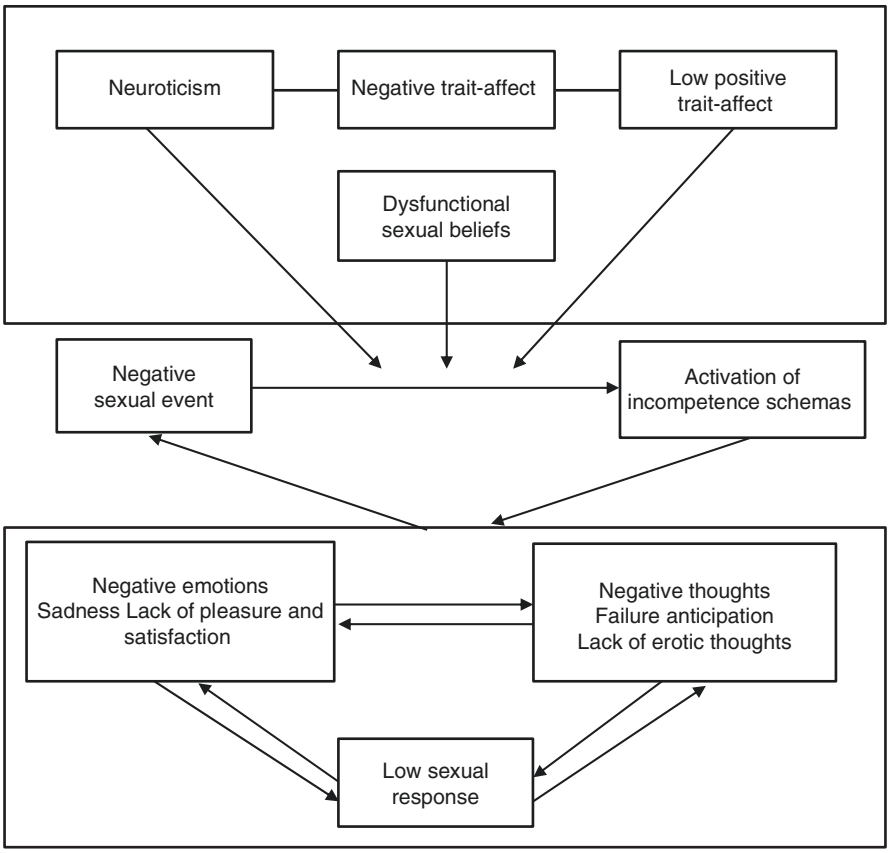

Fig. 16.1 The cognitive-emotional model of sexual dysfunctions (adapted from reference 16)

Table 16.2 Possible sexual side effects of antidepressants

Sexual side effects	Other possible side effects
Loss of sexual interest and desire Arousal problems (erectile dysfunction) Orgasm problems (delayed orgasm, anorgasmia, ejaculatory difficulties)	Nausea, increased appetite and weight gain, agitation, fatigue, insomnia, dizziness, blurred vision, dry mouth

16.3 Clinical Management

16.3.1 Assessing Patients with Comorbid Depression and Sexual Problems

Sexual health and sexual satisfaction are very important dimensions for an individual's general health and perception of quality of life [18]. Most patients have concerns regarding sexual functioning and welcome the healthcare professional

addressing the topic. The clinician has an important role in modeling sexual communication while assessing the patient's sexual history and in encouraging the patient to get involved and active in the clinical process. Addressing sexual health concerns in an empathic and open matter with patients may be surprisingly accessible and have a positive impact in patient's treatment adherence and satisfaction.

A comprehensive and complete sexual history interview is one of the most important clinical tools for the assessment of patient's sexual complaints. In an appropriate setting, the patient should be introduced to the topic of sexual health and asked about any concerns he or she might be having regarding his/her current level of sexual functioning. Patients should be encouraged to provide a brief but detailed description of the current sexual problem, if any, and to describe any variations in sexual response and sexual activity before, during, or after the occurrence of the depressive episode. If the patient is not open or is showing no desire and willingness to discuss sexual matters, it is preferable only to introduce the topic, provide a little information at a time, or address the topic in another session. For patients suspected to present secondary depression due to sexual dysfunction, it is important to refer the patient to a specialized mental health service.

Case Report 1 Erectile Difficulties and Loss of Sexual Desire Associated with Clinical Depression

Mark is a 44-year-old salesman who has been married to Julia for 16 years. Mark has a long history of recurrent depressive disorder and is under antidepressant medication due to a recent depressive episode. He sought clinical advice for his recent erectile problems as he has been recurrently losing erection while attempting vaginal penetration. Mark is very concerned about his current sexual problems and with the possibility of his penis being "too small" to sexually satisfy his wife as he always did. Mark is not feeling very interested in sex anymore and has been avoiding sexual intimacy actively. He feels very humiliated about the whole situation and believes that he will never be able to perform sexually and satisfactorily again.

Note: The case presented is entirely fictional.

In Mark's case it is apparent that sexual complaints arise in the context of an active depressive episode. In this particular scenario, the symptoms of sexual dysfunction are expected to dissipate as the depressive symptoms improve. Nevertheless, it is still important that the clinician addresses sexual concerns in an informative and therapeutic manner. Discussing the sexual response cycle and the changes in sexual response during depression is a good way to validate Mark's concerns and to empathically adjust his expectations regarding sexual functioning. To maximize treatment compliance, sexual side effects of medication should be discussed and evaluated regarding the possibility of adjustments to minimize its impact on sexual response. Some suggestions on improving emotional intimacy between Mark and Julia, particularly on different forms of sexual stimulation (couple exercises and sensate focus), may be important for both partners to enjoy some degree of sexual

pleasure without focusing on genital responses and for Mark to regain trust and self-confidence on his ability to pleasure his wife. Encouraging the patient to engage in cognitive-behavior therapy for depression, where he could also have the opportunity to test and challenge his cognitive distortions and erroneous sexual beliefs emphasizing sexual performance and women's sexual pleasure ("penile erection and size are essential for woman's sexual satisfaction"), would be determinant in helping to prevent future depressive episodes and related sexual symptoms.

The PLISSIT model has proven to be a very useful tool for discussing sexual health concerns with patients. This model offers guidance to the healthcare provider on how to assess and approach the complexity of sexual complaints. Table 16.3 displays the different moments in assessing sexual difficulties and provides examples on how to ask sensitive questions. The clinician should start by approaching the topic as part of the clinical routine and give the patient **permission** to talk about current sexual concerns while offering reassurance and acceptance about patient's

Table 16.3 PLISSIT model for addressing sexual health in patients with depression

	Objective	Examples
P—Permission	Give the patient permission to talk about sexual health concerns and reassure that feelings and needs are normal and acceptable	"It is part of my routine to ask about sexual health as part of the consultation. Would you like to tell me about any sexual concern you may be having?"; "Many women/men under treatment for depression report a decrease in sexual desire. Have you noticed a decrease in sexual desire/function?"; "Have you noticed any changes in your sexual function, lately?"; "Are you experiencing any sexual problems?"
LI—Limited information	Provide limited and accurate information according to patient's concerns, and if the situation exceeds the clinician's level of comfort or expertise, consider referring the patient to a qualified specialist in sexual medicine/sex therapist	Education about the sexual response cycle, anatomy, the co-occurrence of depressive symptoms and sexual problems, discussing changes in sexual response during antidepressant medication
SS—Specific suggestions	Simple specific suggestions are provided according to the clinical diagnosis and the clinical assessment to improve sexual well-being	Behavior modification, improving sexual communication and emotional intimacy between sexual partners, adopting different forms of sexual stimulation
IT—Intensive therapy	Structured psychosexual clinical intervention to address sexual dysfunction	Sex therapy, marital therapy, cognitive-behavioral therapy

feelings and needs. **Limited information** is provided according to patient's concerns and **specific suggestions**, and solutions may be recommended to cope with the problem. At this stage, if the situation exceeds the clinician's level of comfort or expertise to manage the patient's difficulties, the healthcare provider may want to consider referring the patient to a qualified sexual specialist (**intensive therapy**) (see Table 16.3).

Sexual response is a multifactorial behavior depending on a complex interplay between biological, psychological, and sociocultural factors (see Fig. 16.2), and clinical assessment should cover several areas of the individual's context and functioning [19–21]. Therefore, the clinical assessment should be completed when a detailed description of the frequency and circumstances under which the sexual problem occurs, the psychosexual developmental history (e.g., previous sexual experiences, sexual beliefs and attitudes about sex), and relationship with the current partner (feelings toward partner and emotional intimacy) is provided. Additionally, a detailed medical exam (e.g., physical examination, blood tests) should be part of the routine to exclude for potential etiological medical factors (e.g., cardiovascular problems, neurological disease). Whenever possible, the sexual partner should also be included in the therapeutic process.

Given the high comorbidity among sexual problems, it is important to assess all dimensions of sexual functioning (current level of sexual desire, adequate level of sexual arousal or lubrication/erection during sexual stimulation, difficulties with having an orgasm, the occurrence of pain during sex) and determine which sexual

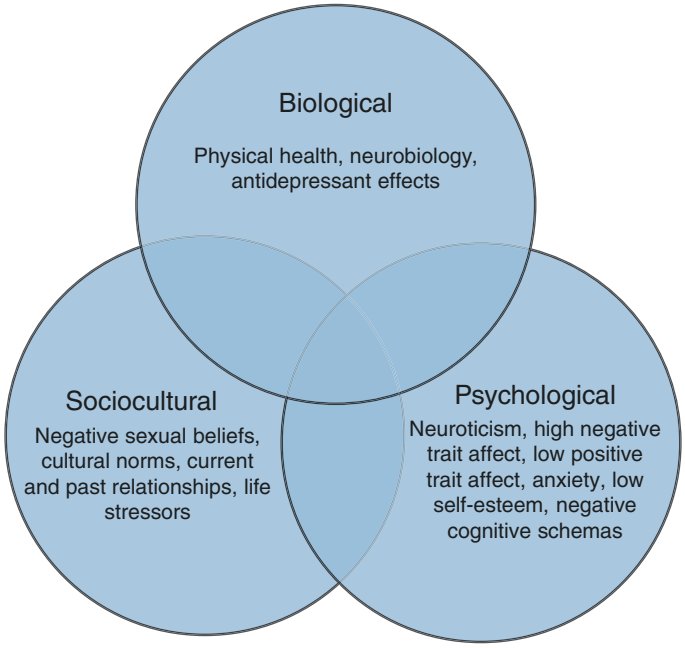

Fig. 16.2 The biopsychosocial model of sexual response

problem emerged first to provide a more effective intervention. As illustrated by Jane's case presentation, sexual interest and arousal disorder often contribute to a decrease in arousal and in orgasm difficulties, and the treatment plan should embrace all the impaired dimensions (see Case Report 2).

Case Report 2 An Example of Major Depressive Disorder and Secondary Sexual Interest/Arousal and Orgasmic Disorder

Jane is a 37-year-old premenopausal woman, who seeks treatment for distressing low sexual desire experienced for the past year. She has been happily married to Steve for almost 12 years, and the couple has two loving children aged 5 and 7 years old. Jane is currently unemployed and refers to having experienced mild to moderate depressive episodes for the past 2 years. Even though she mentions having experienced low sexual desire and orgasm problems before the depressive episodes, sexual difficulties became more evident only for the past year. Jane shows no initiation or interest in sexual activity and rarely consents to having sexual activity with Steve, who has normal sexual function. When she engages in sexual activity with her husband, she only occasionally gets sexually aroused and struggles to reach orgasm. She does not masturbate nor used to do it in the past. Given the persistence of some residual depressive symptoms, she is still under psychiatric medication and has psychotherapy sessions every 2 weeks. Jane was referred to sex therapy to have a specialized assessment to be able to address more specifically her sexual complaints. Her general physical and pelvic exams are normal.

Note: The case presented is entirely fictional.

Despite the presence of residual symptoms of depression, Jane's case suggests the existence of sexual difficulties prior to the onset of depressive episodes and their relatively independence from depression as they persisted after those episodes. Nevertheless, in the initial stage of sex therapy, the clinician should explore in depth the circumstances under which sexual difficulties arose in the past and clarify its current relation to depression. This will create the opportunity for psychoeducation to take place and to provide the patient with adequate information about variations in sexual response and the factors affecting it. Since Jane appears to have no masturbation habits at all, specific information should be provided regarding sexual anatomy and common forms of sexual stimulation used to increase arousal and eventually to reach orgasm. Specific suggestions on exploring her erotic body parts (masturbation training) would be very helpful for Jane to become more familiar and comfortable with her body and to be more aware of sexually arousing stimuli and to use it to increase sexual arousal in sexual situations. Such information and exercises will be highly therapeutic for Jane but would need to be carefully and progressively included in the sessions as some reluctance in touching her

body may arise. When Jane appears to be more comfortable with the touching and her body, sensate focus exercises would be an excellent way to involve her husband in the exercises and to help the couple to reintroduce sexual activity in a gradual way, while improving communication skills and emotional intimacy. By helping Jane and her husband to first focus on the pleasurable sexual sensations of non-genital touching (while decreasing attention on goal-directed sex and sexual performance as the experience of orgasm), they will be in a better condition to use self-knowledge and self-stimulation to increase sexual arousal in future sexual situations. During this process, specific suggestions to improve couple's emotional intimacy, as scheduling times for physical and emotional intimacy or exploring alternate forms of sexual expression (sensual massage, bath together, watching an erotic movie, use of erotica), will help to stimulate sexual desire and will encourage active change in monotonous and routine sex scripts. Cognitive restructuring of sexual myths and dysfunctional sexual beliefs contributing to low sexual desire and arousal ("a virtuous woman controls her sex urges"; "masturbation is not a proper activity for a respectable woman"), and associated to the experience of orgasm ("If I let myself go, I'll lose control"), is an important strategy to encourage Jane to adopt new adaptive forms of coping and to have a more pleasurable and satisfying sex life.

Several self-reported instruments are also available to assess sexual response and overall sexual functioning, covering a broader range of symptoms and dimensions of male and female sexual dysfunction (see Table 16.4). The self-reported instruments may be used to screen for sexual problems or depression and are an important additional source of information to the clinical interview.

Table 16.4 Self-reported instruments for screening sexual dysfunction and depression

Sexual dysfunction	Depression
• The International Index of Erectile Function (IIEF)	• Hospital Anxiety and Depression Scale (HADS)
• The Female Sexual Function Index (FSFI)	• Hamilton Rating Scale for Depression (HAM-D)
• Brief Index of Sexual Functioning for Women (BISF-W)	• Beck Depression Inventory (BDI)
• Golombok Rust Inventory of Sexual Satisfaction (GRISS)	• Brief Symptom Inventory (BSI)
• Brief Sexual Symptom Checklist (BSSC)	
• Female Sexual Distress Scale-Revised (FSDS-R)	
• Sexual Distress Scale-Revised (SDS-R) • The Changes in Sexual Functioning Questionnaire (CSFQ)	

16.3.2 Clinical Intervention

One of the main principles underlying the treatment of sexual problems is that each case is unique and the treatment plan should be individualized and tailored to the patient's needs and circumstances. A comprehensive and effective sexual intervention often requires a multidisciplinary approach that may include a combination of biomedical interventions, sex therapy, cognitive-behavioral interventions, and pharmacotherapy for the treatment of concomitant medical or psychiatric conditions [22, 23]. Research has shown that improvements in sexual functioning resulted in positive changes in self-confidence, mood, and relationship quality and constitute one of the most significant predictors of depression episode remission [5, 24]. For these reasons, an adequate management of sexual problems should be an integral component of treatment for all men and women with both sexual and depressive conditions.

Sexual dysfunction occurring in patients with depression must be assessed and treated sensitively and empathically. While milder forms of depression respond efficiently to psychological interventions (e.g., cognitive-behavioral therapy), moderate to severe depressive symptomatology demands a strategic approach combining psychiatric treatment (antidepressant medication) and psychological therapy. Additionally, to maximize treatment compliance and prevent premature treatment discontinuation, the use of antidepressant medication with a low impact on sexual response combined with psychotherapy is preferred. In the initial phase of the treatment for depression, most patients tend to minimize the importance of medication-induced sexual problems, either because they are disinterested in engaging in sexual activities due to current depressive symptoms or because they consider it to be a secondary problem at that point. In either case, it is important for the patient to be informed about the possible sexual side effects of antidepressant medication and to be given the opportunity to address this topic later, if they wish to. The primary goal of treatment for sexual dysfunction is to restore sexual pleasure and satisfaction within the individual and the couple. Focusing exclusively on sexual response by means of "increasing erections," "producing orgasms," or "increasing sexual desire" is counterproductive and may exacerbate the problem as it increases anxiety-related concerns about sexual performance. This may explain why a significant proportion of men under PDE5 inhibitor medication discontinue treatment. Even though PDE5 represents a very effective solution for treating erectile dysfunction (alone or with comorbid depression), studies have shown that an integrative treatment combining medical and psychological interventions results in higher clinical improvements and sexual satisfaction [25–29]. Promoting pleasurable contact between the couple may configure an opportunity to restore emotional closeness between the sexual partners and, ultimately, to deal more effectively with some depression-related symptoms, such as isolation, feelings of worthless, and personal devaluation.

Qualified specialists including sex therapists help their patients pursue improvements in sexual health using a variety of therapeutic techniques as described more fully below:

16.3.2.1 Education

Provide patients with adequate information about the sexual response cycle, basic anatomy, and factors affecting sexual response, including the importance of reverting risk factors and adopting a healthy lifestyle. Accurate knowledge about the impact of co-occurrence of depressive symptoms and sexual problems and discussing changes in sexual response during antidepressant medication help patients to normalize transient sexual difficulties and to develop more realistic and appropriate expectations regarding sexual function.

16.3.2.2 Sensate Focus Exercises

Sensate focus is a behavioral technique used to improve a couple's sexual behavior and to learn to focus on the pleasurable sensations of touching while decreasing attention on goal-directed sex and sexual performance (e.g., getting an erection or experiencing orgasm) (see Chap. 12). Assigning sensate focus exercises helps individuals desensitize to sexual activity that is causing anxiety or avoidance and increases non-demanding pleasure. At an initial stage, couples are encouraged to focus on non-genital touching and on the elicited sexual sensations and, gradually, over time, to touch more areas and finally to have intercourse. When working with patients with depression, it is highly recommended that the spacing between the different moments comprising this exercise is long enough to allow the patient and the couple to perform each task with success. The physical and emotional availability that sensate focus exercises require can be negatively influenced by the patient's sense of vulnerability and by his/her belief about the inability to engage sensually or to rouse sexual interest in the partner ("What's the point? I'm not attractive anymore"). Encouraging intimate and pleasurable contact between sexual partners is an important way to reestablish emotional and physical intimacy and provides an excellent opportunity for the patient to be cherished and to regain trust and self-confidence.

16.3.2.3 Mindfulness

Teaching the practice of mindfulness cultivates active and nonjudgmental awareness of the body and its sensations and improves attentional processing of sexual stimuli which is a central requirement for an adequate sexual response to occur. By focusing on the physical sensations of sexual activity instead of being worried about sexual performance, the couple is more attentive to one another and to sexually respond to their partner during the sexual situation. The well-known negative effects of depression in the cognitive system may compromise the patient's ability to stay focused and concentrated during mindfulness exercises. For that reason, mindfulness exercises need to be performed with time, in a proper setting free of interruptions or distractors, and practiced on a regular basis to maximize the therapeutic results.

16.3.2.4 Cognitive Restructuring

Cognitive restructuring focuses on the role of cognitive factors such as negative thoughts, myths, and dysfunctional beliefs in determining emotional and behavioral

responses to sexual problems. This technique was initially developed as part of cognitive-behavioral therapy for depression and has been adapted to help people cope with stressful events and conditions by challenging negative self-statements and catastrophizing (e.g., "I'll never be able to have a satisfying sex life again and my sexual partner won't love me anymore") that generate negative emotions and avoidance behavior and to replace them with more positive statements that reduce negative affect and encourage adaptive coping.

Helping the patient to describe in detail a recent negative sexual situation (e.g., a situation where the male patient was not able to perform sexually by losing erection or the female/male patient experienced marked difficulties in reaching orgasm) is a means of identifying patient's automatic thoughts and related cognitive beliefs that are central aspects in cognitive therapy. Imaginary guidance ("close your eyes and focus on a recent situation in which you had problems with …") may be a good technique to help the patient with depression to remember the thoughts occurring in that particular situation (e.g., "my penis is not responding", "I'm not aroused"), related emotions (sadness, anxiety), and their impact on overall sexual response (e.g., loss of sexual arousal). The same exercise can be repeated for a successful sexual situation to help the patient understand the differences in sexual thoughts ("this feels good", "I'm very aroused"), emotions (excitement, joy), and in sexual response (erection) in both situations and to encourage the use of more positive statements in similar situations. Patients with depression often catastrophize ("If I lose my erection again, my partner will leave me", "I will never be sexually competent again", "I am a real failure", "I'm the worst sexual partner ever") and overgeneralize sexual difficulties ("I have never had an orgasm since I got depressed, and I will never be able to orgasm again"). Understanding the patient's recurrent concerns during sexual activity helps to identify underlying cognitive schemas and core sexual beliefs and to challenge their content.

16.3.2.5 Sexual Fantasy Training

This technique encourages men and women to develop and explore mental imagery which stimulates sexual desire and increases sexual arousal and sexual pleasure. Renewing or increasing the repertoire of sexual fantasies helps to counteract monotony and sexual routine, particularly in long-term relationships. Reading an erotic book alone or reciting an erotic excerpt to the sexual partner, watching an erotic movie for inspiration (depending on the couple preferences, it may be either an explicit sex movie or a trivial romance), and creating a different scenario for sex to take place (e.g., using soft lightening, candles, trying a new room) are some possibilities to begin with to stimulate sexual desire within the partners.

16.3.2.6 Communication Training

Communication problems are frequent in couples experiencing sexual difficulties, and improving communication is a prerequisite for efficiently addressing sexual problems. Communicating with a partner with depression may be particularly challenging because of the interference of the cognitive distortions typical of depressive states ("I'm worthless", "My partner is speaking to me because he/she feels sorry for me", "I'll soon be abandoned") and avoidance behavior. Practicing active

listening, showing empathy and assertiveness, and expressing sexual preferences and desires help to reduce conflict and misunderstanding between the couple.

16.3.2.7 Couples Exercises

These are exercises designed to help the couple to explore their sexual preferences and to promote the experience of sexual behaviors with positive affect and experiences. For example, by scheduling times for physical and emotional intimacy or exploring alternate forms of sexual expression (e.g., use of erotica, sensual massage), this encourages the couple to cultivate closeness and intimacy and stimulates changing routine sex scripts.

16.4 Key Messages

- Sexual problems are highly prevalent conditions among men and women with depression and have a significant impact on both individual's and the couple's overall quality of life and well-being.
- Depressive symptoms should be routinely screened in patients reporting sexual dysfunction, whereas patients presenting depressive disorders should be screened and effectively treated for sexual problems, to prevent symptom exacerbation and to improve quality of life. Patients should be referred to a sexual medicine specialist when justified.
- The primary goal of treatment for sexual dysfunction is to restore sexual pleasure and satisfaction within the individual and the couple. Focusing exclusively on sexual response (restore erection, orgasm) increases anxiety-related concerns about sexual performance and exacerbates sexual dysfunction.
- A multidisciplinary approach integrating biomedical and psychological interventions optimizes treatment compliance and prevents premature treatment discontinuation and offers higher clinical improvements in patients with co-occurring sexual problems and depression.
- Educational programs specially designed for the prevention of depression and for promoting sexual health in the general population are required and highly recommended.

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Bipolar and Related Disorders

17

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17.1 Introduction

Bipolar and related disorders are dynamic mental conditions presenting an extensive range of symptoms affecting cognitive, affective, and behavioral domains [1]. People suffering from bipolar I disorder have experienced at least one manic episode which may have been preceded or be followed by hypomanic or major depressive episodes, whereas in bipolar II disorder, the experience of at least one episode of major depression is a requirement for diagnosis purposes, along with the experience of one hypomanic episode. Both categories of bipolar disorder are highly troublesome given the extreme mood instability and the significant impairment in familial, social, and professional functioning. When both hypomanic and depressive periods are present for at least 2 years (1 year for children) without fulfilling the criteria for an episode of mania, hypomania, or major depression, the diagnosis of cyclothymic disorder is more appropriate [2, 3] (see Table 17.1).

Manic or hypomanic episodes involve the experience of a period of abnormally and persistently elevated, expansive, or irritable mood, accompanied by intense overactive behavior and energy, decreased need for sleep, pressure of speech, and racing thoughts [1–3]. Such episodes are severe enough to have potential negative consequences, either socially, professionally, or sexually, and in some cases, hospitalization may be necessary [4]. Psychotic symptoms such as delusions and hallucinations may also be present and require effective treatment (hospitalization) to prevent the patient from harming himself or others. Manic episodes may occur on their own, but typically they alternate with periods of major depression. For most

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Table 17.1 Bipolar and related disorders

Category	Clinical features
Bipolar I disorder	Diagnosis requires at least one manic episode, with or without hypomanic or major depressive episodes
Bipolar II disorder	Diagnosis requires at least one hypomanic episode and one major depressive episode in the absence of lifetime history of mania
Cyclothymic disorder	At least 2 years (or 1 year in children and adolescents) of periods with hypomanic and depressive symptoms without ever fulfilling the criteria for an episode of mania, hypomania, or major depression
Substance-/medication-induced bipolar and related disorders	A disturbance in mood during or soon after substance intoxication or withdrawal or after exposure to a medication
Bipolar and related disorder due to another medical condition	The disturbance in mood is the direct pathophysiological consequence of another medical condition
Other specified bipolar and related disorder/unspecified bipolar and related disorder	Presence of symptoms characteristic of a bipolar and related disorder that do not meet the full criteria for any of the disorders in the bipolar and related disorders diagnostic class

Adapted from DSM-5 [2] and ICD-11 [3]

patients and caregivers, depressive symptoms are more pervasive and debilitating than mood elevation episodes [4]. Symptoms of depression include low mood, extreme sadness and lack of interest and pleasure, and a range of additional physiological, motor, motivational, and cognitive symptoms (e.g., feelings of hopelessness and worthlessness; loss of energy, appetite, or weight; sleep disturbance; and suicidal ideation). Depression leads to greater impairments of overall functioning and quality of life and is associated with increased risks of attempted and completed suicide [4]. Depressive symptoms or dysphoria may also occur during a manic episode and last for brief moments to a few days (bipolar disorder with mixed features), and relatively rapid mood shifts (lability) are very common. The patient may also experience a symptom-free phase between episodes that can last for months [1–4].

Bipolar disorders are common psychiatric conditions that equally affect men and women worldwide [4]. Estimates of the lifetime prevalence range from 0.3% to 2.4%, but there is a higher number of individuals reporting subsyndromal symptoms of mania [5–8]. In addition to the considerable functional impairment and reduction in quality of life, bipolar disorders are associated with significant medical (cardiovascular disease, diabetes mellitus) [9] and psychiatric comorbidity (particularly with anxiety disorders and substance use disorders) [10] and are a leading cause of premature mortality due to suicide [11]. For all of these reasons, patients suffering with bipolar disorders require an accessible, multidisciplinary, and humanized effective treatment to achieve rapid symptom control, mood stabilization, and to prevent episode recurrence.

17.2 Clinical Manifestations

Bipolar disorders have a negative and profound impact in overall individual's areas of functioning, and sexual behavior and intimate relationships are no exception [12]. It is important to understand how sexual behavior evolves during the course of the bipolar disorder and the consequences such behavior can have for the individual and respective family. During a manic or hypomanic episode, an individual's sex drive may be substantially heightened, and the individual's judgment about the appropriateness of sexual behavior can be clearly diminished [12–14] (see Melissa's clinical example in Case Report 1). Because mania is often marked by impulsive behavior, the consequences of the individual's actions are not clearly anticipated, and such impulsivity may motivate, for example, sexual disinhibition and increase the likelihood of engaging in risky sexual behavior (e.g., extramarital affairs, sex with multiple partners, unprotected sex), and put the individual at risk of contracting a sexually transmitted disease or of an unintended pregnancy [15]. Hypersexual behavior is one of the most common and challenging aspects of an individual suffering from bipolar disorder, leading to significant emotional distress among the loved ones and to substantial, often irreversible, damage in intimate relationships [13].

Case Report 1: Melissa's Case Presentation: An Example of Bipolar II Disorder
Melissa is a 43-year-old lawyer who has been under treatment for bipolar II disorder for the past 10 years. During her depressive episodes, Melissa shows a complete lack of interest in everything around her and refuses any kind of physical intimacy. In opposition and according to her boyfriend Sam, when Melissa has her "highs," she becomes more disinhibited and sexually demanding. On more than one occasion, Sam witnessed an inappropriate behavior from Melissa toward his friends, including being seductive and flirting with them.

Note: The case presented is entirely fictional.

Melissa's case illustrates how sexual behavior and sexual response can change dramatically along the different phases of bipolar disease. Whenever Melissa becomes depressed, she refuses any kind of intimate contact and engages in active avoidance behavior regarding sexual intimacy (for managing sexual problems during depressive states, see previous chapter on depressive disorders), while in hypomanic episode, she can easily become sexually disinhibited, highly active, and demanding. Melissa's sexual behavior is having a profound and negative impact both on her sexual health and sexual self-image and is causing significant and potentially irreversible damage in her relationship with Sam. Both Melissa and Sam are under significant stress, and it is crucial for them at this point to be encouraged to engage in any form of psychological intervention, to better cope with challenging symptoms, and to help to pursue a more stable and happy life together. Sex therapy may be an important solution to address sex-related concerns, but it should be provided in addition to marital therapy or cognitive behavior therapy. Any form of

therapy will be highly effective if provided during Melissa's symptom-free phases, when her insight is no longer compromised and she is able to identify the typical patterns of erratic sexual behavior and related consequences. This will help her (and the couple) to develop specific strategies to cope with such behaviors in the future and to make decisions regarding own protection (e.g., deciding on using a permanent contraceptive, activating emerging medical consultation if suspect of STIs or pregnancy). For example, by identifying and anticipating high-risk situations where the inappropriate behavior is most likely to happen (e.g., flirting with friends at home when alone), Melissa and Sam are more prepared to work on behavioral strategies to manage these situations (e.g., by limiting home visits or to avoid moments alone with friends during critical periods, by spotting early signs of the unwanted behavior and to give immediate feedback about it). It is also important to instruct the patient and the relatives to activate medical emergency or to call the mental health provider whenever shifts in Melissa's mood happen to prevent or to minimize the impact of new hypomanic or depressive episodes. Periods of euthymic mood should also constitute an opportunity for the couple to reinvest in the relationship and strengthen the sense of bonding and intimacy. Melissa and Sam should then be encouraged to engage in pleasurable activities together (e.g., go for a walk or exercise together, watch a movie, cook a meal together) and to gradually increase the moments of physical intimacy (e.g., sensual massage, bath together, sensate focus exercises). Although it might be very difficult for Melissa and Sam to accept and minimize some behaviors exhibited during the hypomanic phases, particularly inappropriate sexual behavior, it is extremely important to help them keep in mind that such behaviors are a clear manifestation of the clinical condition and do not result necessarily from Melissa's will. This rationale may also be very valuable in helping the patient and her partner manage any negative constraints and emotions (sadness, guilt, resentment) that most of those behaviors entail and to keep the motivation high for adherence to treatment.

Sexual expression and sexual behavior of individuals experiencing depressive episodes in the context of bipolar disorder are also severely affected. Recurrent disturbance in sexual function and satisfaction, particularly a significant loss of sexual interest and desire, along with the experience of other sexual dysfunctions (e.g., arousal dysfunction, erectile dysfunction) is as intense and incapacitating as the severity of the experienced depressive symptoms [12, 16] (see Chap. 16 on depressive disorders).

Disturbance in sexual response can also be a result or be heightened by the side effects of medication to treat the bipolar disorder, and this awareness by the patient may be an important risk factor for poor adherence to medication or even a trigger to medication withdrawal (see Table 17.2) (for more details, see Chap. 24).

Table 17.2 Sexual side effects and overall side effects of medications to treat bipolar disorders

Class of medication	Sexual side effects	Other possible side effects
Mood stabilizers (e.g., lithium)	Loss of sexual interest and desire, erectile problems	Tremors, dry mouth, excessive thirst, weight gain, diarrhea, vomiting, poor concentration, hair loss, decreased thyroid function, muscle weakness
Anticonvulsants (e.g., carbamazepine, lamotrigine, valproic acid, topiramate)	Loss of sexual interest and desire, erectile problems, ejaculatory problems	Tremor, sedation, nausea, dizziness, drowsiness, fatigue, rash, weight gain
Antipsychotic (e.g., haloperidol, risperidone. Olanzapine, quetiapine, clozapine)	Loss of sexual interest and desire, arousal problems (erectile dysfunction, vaginal dryness), orgasm problems (delayed orgasm, anorgasmia, ejaculatory difficulties)	Dry mouth, drowsiness, blurred vision, muscle spasms or tremors, weight gain, nausea
Benzodiazepines (e.g., alprazolam, diazepam, lorazepam, clonazepam)	Loss of sexual desire, difficulties in erection, retarded ejaculation, anorgasmia	Sedation, dizziness, transient drowsiness, headache, sleep disturbance, confusion

During the depressive phase, it is possible that guilt and remorse about past impulsive (sexual) behavior come to play and be sharpened by the fear of realizing that significant hurt was caused to the loved ones. Intense regret and shame about past actions may intensify depressive symptoms and contribute to feelings of worthlessness, social withdrawal, and loss of emotional and sexual intimacy with a partner, which can confuse the partner and contribute to feelings of rejection or abandonment. Even though sexual behavior and sexual functioning are importantly affected by bipolar disorder in so many ways, sexual health remains a poorly addressed topic with the patients and their families in medical care.

Case Report 2: Jerald's Case Presentation: An Example of Sexual Difficulties Associated with the Treatment of Bipolar I Disorder

Jerald suffers from bipolar I disorder and has been hospitalized several times due to severe manic and depressive episodes. A few months ago, he started a new pharmacological treatment combining higher doses of mood stabilizers and antipsychotics. This new treatment has made mood stabilization possible and the return of a daily routine; however, Jerald has been considering the possibility of dropping out the treatment because of its "intense and negative effects" on sexual functioning. He reports experiencing recurrent erection difficulties and a significant decrease in sexual desire that prevent him from having a satisfactory sex life.

Note: The case presented is entirely fictional.

It is not entirely unusual for a nonsex specialist to naively devalue the patient's sexual complaints and to convince him that he's "doing fine" and will certainly not want to jeopardize his emotional stability "just because of

some sexual problems." But eventually the patient will. Jerald's case is a perfect example of a simple situation that should deserve serious clinical attention because the patient is at effective risk of abandoning treatment, with all the negative repercussions it could involve. Validating the patient's sexual concerns by addressing them in an open and empathic way will create the opportunity for the clinician to provide important clinical information while encouraging the patient to pursue a healthy and satisfying sex life. The patient and the partner should be referred as soon as possible to a qualified sex specialist to receive specific intervention for sexual dysfunction. Jerald's mood is euthymic at the present, and this is an excellent moment to discuss about the sexual response and the factors affecting it. Not only how medication negatively affects his sexual response but how many other factors (e.g., conflict with sexual partner, routine sex scripts) may also play an important role in decreasing sexual interest and arousal. By understanding how sexual response occurs and what factors have a positive or negative effect on it, the couple is in a better condition to adjust expectations and to mobilize themselves to incorporate new forms of sexual and emotional expression in the relationship. The therapist may also suggest Jerald and his wife form new ways of cultivating and improving emotional and physical intimacy. For example, by planning regular sensate focus exercises (e.g., twice or three times a week) and by including new forms of sexual stimulation into their sexual repertoire (e.g., sensual touching), this may help the couple to reexperience some form of sexual pleasure and to cultivate intimacy. Involving the sexual partner in the whole therapeutic process is paramount, not only for changes in sexual behavior to occur but also for stimulating emotional intimacy and support. The partner is also in a privileged position to encourage treatment adherence and to detect early signs of depressive or manic episodes that may require immediate medical intervention. As part of the multidisciplinary approach advocated for with bipolar disorder, medication dosage reductions or transitions to medications with better sexual profiles could be discussed with Jerald's psychiatrist. In some cases and if the patient desires, an erection facilitator (PDE5) may be incorporated to help to improve sexual response and to restore sexual self-confidence. Cognitive behavioral therapy is another central component in sex therapy (as it is a crucial adjunctive treatment in bipolar disorders) and will not only help Jerald to test and cope with his negative sex assumptions related to the medication ("I'll never be able to have good sex again if I continue under medication," "I can't sexually satisfy my wife") and avoidance behavior but will also help him cope more adaptively regarding overall sexual matters.

17.3 Clinical Management

17.3.1 Assessing Sexual Function in Patients with Bipolar Disorders

For most patients with bipolar disorders and their partners, sexual satisfaction remains an important aspect of their well-being and quality of life. Keeping the symptoms under control is the best way to have a fulfilling sexual life within a stable and healthy relationship [12]. Unfortunately, it may be quite challenging to control the symptoms in some cases given the specific clinical features of the disorder. Effective treatment is not only necessary for acute phases of depression and mania but also in the long term to prevent relapses, as well as maintaining patients' medication compliance, which can be difficult (see Jerald's clinical example Case Report 1). Clinicians can address sexual problems in a more efficient and preventive way when the patient is emotionally stable (euthymic mood). In this case, patients are in a better position to discuss the topic and to become involved in their clinical treatment. As most patients and their partners are concerned about the impact of the symptoms and medications on their sexual function, their motivation to address the topic openly is usually high. Additionally, given the fact that relationships are continually challenged and under stress because of mood swings and behavioral instability, both the patient and the sexual partner should be included in the clinical process and encouraged to share their concerns.

The PLISSIT [17] model offers the clinician the necessary guidance for discussing sexual health concerns and other sensitive topics with patients in an open and empathic way. While assessing a patient's medical and sexual history, the clinician offers reassurance and provides accurate information according to patient's concerns. Providing patients and the partners with adequate information about the sexual response cycle and the factors affecting sexual response, including the expected changes in sexual response and behavior during acute phases of depression and mania, is of major importance at this point. Additionally, discussing probable changes in sexual response during treatment helps patients and their partners to adjust expectations about their sex lives and encourages to take an active role in reshaping how they intimately relate to one another (see Table 17.3).

Assessing a patient's overall health condition should be part of the medical routine to exclude any other health conditions (e.g., head injury, stroke, delirium, substance abuse) or medications (e.g., corticosteroids, psychotropics) that may be causing sexual disinhibition or other symptoms that mimic bipolar disorder or sexual problems. As soon as the clinician is aware of the current level of sexual functioning (e.g., a complete description about the frequency and the context under which sexual problems occur, if any, is available) and identifies the typical changing pattern of sexual response and behavior right before, during, and soon after the

Table 17.3 PLISSIT model for addressing sexual health in patients with bipolar disorders

Stage	Description	Examples
P—Permission	Give the patient permission to discuss sexual health and enable the patient to feel comfortable in addressing sensitive matters	"Many women/men under treatment for bipolar disorder notice changes in sexual function. Have you noticed any change lately?", "Would you like to tell me about any sexual concern you may be having?"
LI—Limited information	Provide limited and accurate information to help the patient function sexually	Education about the sexual response cycle, anatomy, and how bipolar symptoms and medication may affect sexual function and sexual response
SS—Specific suggestions	Provide simple specific suggestions to enable the patient to engage in the desired sexual activity (depending on current mood)	Improving sexual communication and emotional intimacy between sexual partners, particularly during symptom-free phases, helps the patient and the partner to spot early warning signs and prevents problematic sexual behavior associated with depression and mania. Provide suggestions on different forms of sexual stimulation
IT—Intensive therapy	Validate patient's concerns and refer the patient to a qualified specialist	Sex therapy, marital therapy, cognitive behavioral therapy

occurrence of an acute episode of mania or depression (e.g., propensity to involve in high-risk sexual situations, loss of sexual desire, and avoidance of sexual activity), he is in a privileged position to offer an effective and preventive therapeutic solution to the patient. In most cases, it is of major importance to refer the patient (and the couple) to a qualified sexual specialist to help with symptom management and for developing effective skills to cope with residual symptoms and to prevent future erratic sexual behavior.

What should a clinician do if the patient is in an active episode of mania or is severely depressed? In either case, the most reasonable thing to do is to have the patient seen by a mental health professional. Priority should be given to protecting the patient from any harm he may incur against himself or others. A severely depressed patient may be on a ruminative loop of guilt and remorse about past impulsive behavior and the hurt it has caused to the loved ones and may be feeling worthless, hopelessness, and suicidal. Conversely, individual's poor judgment and impulsive behavior during a manic episode can put himself in risky situations that threaten his physical and emotional integrity and others' (e.g., unprotected sex, sex with multiple partners). In either situation, immediate hospitalization may be required.

During the clinical assessment, special attention should also be given to the partner and family members of the person who has bipolar disorder. Being in a committed relationship with someone with bipolar disorder can be very challenging because

of the uncertainty and unpredictability of mood swings and associated disruptive behavior [4, 12]. For these reasons, the partner (or other close loved ones) should also be regularly screened for anxiety and depression and offered emotional support to help cope with bipolar disorder and the distress it may be causing in the relationship.

17.3.2 Clinical Intervention

Bipolar and related disorders typically require a long-term and highly individualized treatment plan aiming at symptom control, prevention of episode recurrence, and mood stabilization [18, 19]. A combination of medications such as mood stabilizers, antidepressants, antipsychotics, anticonvulsants, and benzodiazepines is frequently used to meet patients' needs and to accomplish the therapeutic goals. Psychotherapy is another crucial component of treatment as it has proven to help the patient manage more efficiently the symptoms and stressors that impact recovery and ensures patients' motivation to comply with the medication treatment, reducing both frequency and duration of mood episodes and the chance of relapse [18, 19]. Psychotherapy also represents an important source of emotional support for patients and their partners, who should be actively encouraged to seek therapy, either alone or as a couple.

Maintaining an intimate relationship with a person suffering with bipolar disorder, particularly if the symptoms are not controlled, may be quite challenging and demanding. The partner is equally under great stress, and it may be very difficult to cope with the mood swings and disruptive behavior, particularly if it involves any form of inappropriate sexual behavior. Sexual function and sexual satisfaction of patients suffering from bipolar disorders are frequently affected and also require a specialized intervention. Different modalities of psychotherapeutic intervention are available and can be very resourceful for the patient and the couple to find better ways to cope with this challenging disorder and related sexual problems and to have a more stable and happy life [12, 18, 19].

17.3.2.1 Cognitive Behavioral Therapy

Cognitive behavioral therapy (CBT) is particularly effective in helping patients to identify triggers for bipolar episodes and how to use effective strategies and coping skills to manage stress and symptoms and to prevent relapse. Cognitive restructuring is a highly effective therapeutic technique used in CBT that helps patients identify, challenge, and change unhealthy cognitive and behavioral patterns that are disturbing to individuals and prevent them from achieving desired goals (e.g., "Being a bipolar patient will prevent me from having a satisfying sex life with my partner"). Enhancing understanding about the problems through psychoeducation sessions is also a core component of CBT as it helps to develop a better understanding of the condition and reinforces treatment adherence.

17.3.2.2 Marital Therapy

Both patients suffering with bipolar disorders and their partners will benefit from couples' therapy. It is crucial to learn how to communicate openly about the impact of the disorder in the relationship. Once the disorder is treated efficiently and the symptoms are under control, it is possible to help the couple manage the consequences of inappropriate sexual behavior for the relationship. Improving communication, support and understanding within the family, enhancing problem-solving skills are core elements of marital therapy designed to reduce stress and conflict between partners. Having the opportunity to share any concerns and to receive appropriate clinical orientation can turn the treatment into a collaborative effort and increase the sense of bonding and closeness to the couple.

17.3.2.3 Sex Therapy

Sex therapy can be very helpful for patients with bipolar disorders and their partners for addressing sexual problems that may arise during the course of the disorder and to pursue a healthy and fulfilling sex life. Several components of sex therapy, including psychoeducation, sensate focus, couples exercises, cognitive restructuring, and communication training, are extremely helpful in stimulating the couple to readjust expectations about their sex lives and by encouraging them to define how they want to relate to one another intimately in the future.

17.4 Key Messages

- Bipolar and related disorders are chronic and highly disabling mental health conditions for both the patients and their families. Relationships are often under great stress given all the mood swings and associated disruptive behavior, and both the patient and the partner should be encouraged to seek therapy alone and/or as a couple.
- Sexual expression and sexual behavior of individuals suffering with bipolar disorders are frequently affected during the course of the disease. Risky sexual behavior during manic episodes, along with severe disturbances in sexual response during depressive episodes (e.g., loss of sexual interest and desire, arousal problems, and erectile dysfunction), frequently heightened by the side effects of medication, compromise sexual health and sexual satisfaction of the patient and the partner.
- Discussing sexual health concerns with the patients and their partners should be part of the medical care routine as it helps to adjust expectations and encourages understanding and intimacy.
- Several modalities of psychotherapeutic intervention are available and are crucial components of treatment when used as an adjunctive to medication. Psychological interventions (e.g., CBT, marital therapy, sex therapy) contribute significantly to increase patient's adherence to the treatment, are effective in managing bipolar symptoms and related sexual problems, and help the patient and the partner achieve a more stable and happy life.

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Anxiety and Somatoform Disorders

18

Goran Arbanas

18.1 Introduction

Anxiety disorders, somatoform disorders, and stress-related disorders are usually classified within one chapter. Half a century ago, they were known as neurotic disorders. Their common denominator is the lack of psychotic symptoms (i.e., delusions and hallucinations), the insight of a patient into the pathological nature of his/her symptoms (contrary to people with psychotic symptoms), and the presence of anxiety. The anxiety is an uncomfortable emotion characterized by expectations of something bad happening or some apprehension and nervousness. People who suffer from these disorders think of their symptoms as problematic, uncomfortable, painful, bothersome, and ego-dystonic (but, in the most severe cases with chronic course, the symptoms can become ego syntonic).

The anxiety can be manifested as a form of generalized bother and apprehension (as in generalized anxiety disorder); of intense and short spells of panic-level anxiety (in panic disorder); of fear towards a specific object or situation (in phobic disorder); of fear that something bad will happen in future, combined with acts to undo such troubles (in obsessive-compulsive disorder); and of fear and panic related to reminders of some traumatic or stressful experience (in posttraumatic stress disorder), transformed into a somatic symptom (in conversion disorders) or myriad of somatic symptoms (in somatoform disorder). As is evident from this short list, the anxiety can manifest itself in many different forms. It can have the form of a mood symptom (i.e., the person feels a negative apprehension and nervousness or feels fear from a certain situation). This can be accompanied by somatic manifestations of anxiety: tachycardia, muscular tension, clenching, tremor of fingers and lips, the sensation of having something in the throat, sweating, pain in the stomach, urinary urgency, and bowel movements. Sometimes, anxiety presents itself only with these

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physical symptoms; in those cases, patients think they have some somatic illness and do not recognize the mental background (in case of panic attacks). Also, anxiety can be converted into neurological or sensational symptoms (e.g., the loss of sight or motor ability in a certain region that usually does not follow anatomical innervations or paresthesias). Sometimes, anxiety is isolated into specific thoughts or fears (e.g., intrusive thoughts of aggression, religion, sexuality, or filth).

Anxiety also has an important role in sexual dysfunctions. It has been recognized that anxiety is one of the main reasons why sexual problems can become chronic [1]. Some minor sexual mishaps (e.g., loss of erection, loss of sexual desire, etc.), especially after some problems in life (e.g., loss of job, conflict with a partner), are common and do not represent a sexual dysfunction. Usually, such problems spontaneously dissolve and are short-lived. But, people prone to anxiety, when confronted with such problems, start to overthink about them, brood about them, and try to get into every tiny element and meaning of it, and in this way, the person cannot move from the normal variation in sexual response but constantly thinks about this decline from the expected reaction. The most well-known example is a performance anxiety in men with erectile dysfunction [2]. A normal variation in hardness of the penis during sexual activity is a signal for the anxious person to start thinking this is the sign of loss of erection. Instead of appreciating the moment and enjoying the sexual feelings, the man starts brooding about his loss of erection, looks at his penis, tries the hardness of the erection, and is not attentive to the sexual stimuli anymore. Next time when starting sexual interactions, instead of focusing on pleasurable experiences, such a person starts thinking about losing erection (or never achieving it), thinks about what will happen, and thinks about all the bad things that will be the result of not having an erection, and in such a state, it is understandable why the person is not going to have an erection and satisfying sexual encounter.

Also, anxiety in sexuality can be in the form of involuntary and compulsive thoughts, where a person is overthinking some aspect of sexuality. For example, a person can have involuntary thoughts that she/he is going to be aroused by somebody who is not adequate as a partner (e.g., a child), which then leads to the emotions of guilt and/or disgust and the inhibition of sexual desire and arousal. Similarly, women with dyspareunia develop this kind of anxious apprehension of pain, so they cannot relax and focus on enjoyment but instead constantly stay vigilant to the painful experiences and therefore cannot achieve arousal and sexual satisfaction.

Two contemporary classifications are used for diagnosing mental disorders: *Diagnostic and Statistical Manual of Mental Disorders* (DSM), currently its fifth edition (DSM-5), and *International Classification of Diseases* (ICD), currently its eleventh edition (ICD-11). Table 18.1 compares anxiety and related disorders in these two classifications.

Table 18.1 Comparison of anxiety and related disorders in DSM and ICD

DSM-5	ICD-11
Anxiety disorders	*Anxiety- and fear-related disorders*
Separation anxiety disorder	6B00 generalized anxiety disorder
Selective mutism	6B01 panic disorder
Specific phobia	6B02 agoraphobia
Social anxiety disorder (social phobia)	6b03 specific phobia
Panic disorder	6B04 social anxiety disorder
Panic attack	6B05 separation anxiety disorder
Agoraphobia	6B06 selective mutism
Generalized anxiety disorder	
	Obsessive-compulsive or related disorders
Obsessive-compulsive and related disorder	6B20 obsessive-compulsive disorder
Obsessive-compulsive disorder	6B21 body dysmorphic disorder
Body dysmorphic disorder	6B22 olfactory reference disorder
Hoarding disorder	6B23 hypochondriasis
Trichotillomania (hair-pulling disorder)	6B24 hoarding disorder
Excoriation (skin-picking) disorder	6B25 body-focused repetitive behaviour disorder
Trauma and stress-related disorders	
Reactive attachment disorder	*Disorders specifically associated with stress*
Disinhibited social engagement disorder	6B40 posttraumatic stress disorder
Posttraumatic stress disorder	6B41 complex posttraumatic stress disorder
Acute stress disorder	6B42 prolonged grief disorder
Adjustment disorder	6B43 adjustment disorder
	6B44 reactive attachment disorder
Dissociative disorders	6B45 disinhibited social engagement disorder
Dissociative identity disorder	
Dissociative amnesia	*Dissociative disorder*
Depersonalization/derealization disorder	6B60 dissociative neurological symptom disorder
Somatic symptom and related disorders	6B61 dissociative amnesia
Somatic symptom disorder	6B62 trance disorder
Illness anxiety disorder	6B63 possession trance disorder
Conversion disorder (functional neurological symptom disorder)	6B64 dissociative identity disorder
	6B65 partial dissociative identity disorder
Psychological factors affecting other medical conditions	6B66 depersonalization/derealization disorder
Factitious disorder	

18.2 Clinical Manifestations and Management

18.2.1 Phobias and Panic Disorder

Specific phobia manifests with fear or anxiety related to a specific object or situation (e.g., height, some animals, blood, flying, etc.). A person with specific phobia tries to avoid any contact or exposure to the object or situation, while exposure to the object/situation produces intensive fear and/or anxiety. The anxiety is clearly out of proportion of what the real danger from the object/situation is. Apart from animal or blood phobias, one very prevalent phobia is a phobia of dentists [3].

Social phobia is a phobia from social situations, such as communication with a group of people or any exposure to group activities, where the person would be watched or scrutinized by others. A person with social phobia fears that others will assess him/her as inadequate, shameful, or a disgrace. The same as in specific phobia, the perceived threat is out of proportion to the real threat.

People with **panic disorder** experience unexpected panic attacks (that come out of the blue, with no clues or reason), which repeat, so the person develops fear from the new attacks (fear of fear). The panic attack is characterized with the following symptoms: tachycardia, sweating, tremor, loss of breath, choking, pain in the chest, nausea, dizziness, paresthesias, derealization or depersonalization, and fear of losing control, of dying, or of losing mind and getting mad. Due to these symptoms and the fear that something is wrong with the body, people with panic attacks usually go to the emergency units, fearing they are having a heart attack.

Agoraphobia can be combined with panic attacks or can be experienced alone. It represents the fear of using public transport (e.g., buses, trains, ships, planes), being in an open public space (e.g., big squares, bridges), being in enclosed spaces (e.g., shops with no windows, cinemas, theatres, churches), being in a queue, and being alone outside house. The person is afraid that in those places something horrible will happen and they will not be reached and the help will not be available if the person develops symptoms (of a panic attack). Again, as in any other phobic disorder, the perceived fear is much out of proportion compared to the real threat.

18.2.1.1 Epidemiology

The 1-year prevalence of specific phobias is 2–9%, for social phobia it is 2–7%, and for panic disorder 0.5–3%. The prevalence of agoraphobia without panic attacks is 0.5–1.5%. All these disorders are twice as prevalent in women, compared to men [4].

18.2.1.2 Specific Information About Contact with Patients

Patients suffering from specific phobias contact a professional when their phobia affects their work, hobbies, or family duties or when they are very disturbed due to the phobia. A typical case would be of a person who has a phobic fear of needles or blood and therefore cannot go through a medical work-up as they are too afraid of the blood check and always flee the laboratory before the blood has been taken.

People with social phobia complain of feeling self-conscious in social situations, avoid going to parties, avoid communicating with other people, and do not want to take tasks at work that would include public presentations. They fear other people will see how inadequate, inferior, stupid, unintelligent, and dull they are. They fear they will be embarrassed and humiliated. For the same reason, they avoid going out to clubs and parties. They feel anxious and do not approach other people, especially if they are not familiar and acquainted with them. Therefore, they have many problems in social contacts, including dating. They may feel emotional or erotic attraction towards a person but do not want to contact that person, fear the person will recognize their weakness and will find them unattractive and uninteresting. Due to this anxiety of social situations and difficulties in coming in contact with women,

men with social phobia more often report paid sex, compared to men with no social phobia (42% compared to 8% of control subjects) [5]. But, when they become familiar with other people, or when they start a sexual relationship, usually, they don't have specific sexual dysfunctions. The therapeutic relationship between a patient with social phobia and a therapist will be endangered due to the same reasons as any other social situation. These patients will be vigilant of any comments (verbal and nonverbal) from their therapist about their inadequacy. They constantly search for evidence that other people (including the therapist) think of them as less worthy, less capable, and less likable. Therefore, the therapist should be aware of the constant threat to their relationship with the patient, when showing any kind of dissatisfaction, boredom, or (distant) disrespect with the patient.

Panic disorder patients, due to the fear that something is wrong with their body, rush to an emergency unit or want to see an internal medicine specialist. Only after a thorough examination are they referred to psychiatrists. Regarding their sexual functioning, patients with panic disorder can avoid having any sexual activities, as they fear these situations could start a new panic attack—up to 65% of patients avoid sexual activity [6, 7]. They also avoid other activities that are physically challenging. Usually they will not give this information to the therapist by themselves (if not asked), but sometimes the partner states that she/he has lost sexual interest. In fact, it is not that the person has lost his/her sexual desire, but in spite of present desire, the patient will not start (or continue the activity initiated by the partner) sexual activity due to the fear that this would lead to the development of symptoms (of panic attack). Some men will also develop erectile dysfunctions, because during the sexual activity, instead of enjoying the activity, the person is constantly checking his pulse, breathing rate, palpitations, and other symptoms. For the same reasons, in women with panic disorder, there is a high prevalence of orgasm problems (24%) (the women do not attend to sexual stimuli but are attentive to the signs of a panic attack) [7]. Also, the patients interpret the symptoms of sexual arousal (e.g., higher hearth rate, increased frequency of breathing) as signs of a new panic attack and stop the activity, fearing the new attack. Some patients completely stop any partner sexual activity for months and even years. Even when the symptoms of panic disorder are under control, due to the fear of having new panic attacks, they continue avoiding sexual activities. At the beginning of a therapeutic relationship, patients are often unwilling to accept that panic disorder is a mental disorder and not a sign of some somatic (organic) disease, and therefore any attempts on the side of the therapist focused on psychological causes can be viewed by the patient as the sign that the therapist does not believe him/her that the symptoms are real. So, the therapist should show empathy for the symptoms and should verbally recognize the suffering and distress the patient is going through, showing to the patient that although the symptoms are not the sign of some serious physical condition, they influence the patient's life to a high degree. Similarly, men with erectile dysfunction often insist that their erectile dysfunction is a somatic problem and insist on continuous medical check-ups (hormone levels, possible physical causes of ED, etc.). The same empathic approach should be employed, with appreciation of the suffering of the patient.

18.2.1.3 Sexual Problems Typical for Phobias and Panic Disorder

Agoraphobic patients are sometimes bound to their home. They are so afraid of exiting the home and going somewhere alone that they stay at home all the time and do not want to leave home even for a short period, not even to the next street. Such cases are rare but existent. In these cases (which can be part of a panic disorder or can be with no panic attacks), people will have great problems in approaching potential partners and dating. If they are not yet in a relationship, they have only limited opportunities for getting to know someone (by means of social media and the Internet). Some people seek help from sexologists and sexual therapists due to these dating issues, although these are not sexual dysfunctions. In cases when there are partner problems, there is a place for psychoeducation (educating the partner of the influence of the agoraphobia on the relationship).

Similarly, to severe agoraphobic patients, patients with social phobia will have difficulties in finding a partner, but for a different reason. While agoraphobic patients avoid exiting the house and going to public places, social phobia patients do not fear leaving their home but fear they will prove inadequate and insufficient in social situations [8]. On the other hand, in dyadic situations, they can feel quite calm and undisturbed.

As mentioned earlier, the main sexual problem of panic disorder patients will be the avoidance of sexual activities as they can produce symptoms that resemble panic attack. In some men with panic disorder, the constant vigilance of their physical manifestations and symptoms deprives them of the possibility to enjoy sexual experience, and they can develop erectile problems, and the risk of erectile dysfunction in these patients is twofold compared to controls [7, 9]. Similarly, in women with panic attacks, some develop orgasmic problems, the same way the men develop erectile dysfunction [10].

Every patient with panic disorder should be asked about sexual problems and specifically about the direct influence of fear and panic attacks on sexual enjoyment and satisfaction. Reassuring the patient about the symptoms is very important, and teaching them that many everyday activities (e.g., physical activity, sexual activity) can have the same symptoms as panic attacks can alleviate their distress. It is useful to ask the patient to do some exercises (e.g., ten squats) in the physician's office and then to ask them what symptoms they have developed, while explaining that is the normal, physiological reaction and not the sign of a new panic attack. Also, patients should be advised not to constantly check their physical signs and symptoms but to try to focus on some neutral stimulus (e.g., to touch the key in the pocket, to try to count the number of leaves on a plant, to see all the colours on some pattern). First, the patient is taught to do so in everyday situations, in a physician's office, at home, and in the street. Later, similar advice can be given for sexual activity. Instead of checking his/her physical symptoms, the patient is taught to be attentive and focused on the level of psychological sexual arousal and to think about whether something could be done that can increase the sensuality of the encounter and increase the sexual arousal (e.g., some music in the background, some scents, or some specific stimulation that the partner can try to achieve). The patient is taught to be aware of

the sexuality and sensuality of the moment, and not of the physical changes that reminds him/her of a panic attack.

18.2.2 Generalized Anxiety Disorder

18.2.2.1 Clinical Description and Diagnostic Criteria

Generalized anxiety disorder is characterized by extreme anxiety, apprehension, and worrying about different activities and situations during the most part of the day. These worries are accompanied with nervousness, difficulties concentrating, irritability, muscle tension, and sleep problems.

People with mixed anxiety and depressive disorder have symptoms of both anxiety and depression, but neither of them is intense enough to be given the diagnoses of either an anxiety or depressive disorder.

18.2.2.2 Epidemiology

Generalized anxiety disorder has a 1-year prevalence of 0.5–3.5%. It is twice as prevalent in women compared to men.

18.2.2.3 Specific Information About Contact with Patients

In generalized anxiety disorder, the patients contact a professional because of the constant worrying about different aspects of everyday life. At the same time, these patients complain of headache, pain in different body parts, loss of concentration, muscle tension, etc. There are no specific sexual problems related to this disorder, but due to the excessive anxiety about the different aspects of their partner life (including the worries about the fidelity of the spouse), this can lead to strains in their relationship and sexual problems. In contacts with these patients, it is important to show them empathy and understanding of their personal distress they experience due to excessive worrying, although these worries are in excess of what would be expected. Reassuring the patient is the important part of the supportive therapy.

18.2.3 Obsessive-Compulsive Disorder

18.2.3.1 Clinical Description and Diagnostic Criteria

Obsessive-compulsive disorder is characterized by compulsions and/or obsessions. Obsessions are repeated intrusive negative thoughts, images, or impulses that produce strong anxiety and distress. Usually they are of the following content: aggression, sexuality, religion, or infestation. Compulsions are ritualized acts that a person does to undo some terrifying event that could happen, although the person recognizes that this could not be in any causal relationship. DSM-5 includes some specific disorders related to obsessive-compulsive disorder: body dysmorphic disorder (the person is preoccupied with some minor flaw in physical appearance) and hoarding disorder (the person cannot throw away things but hoards them and therefore covers the house with these objects) [4].

18.2.3.2 Epidemiology

The 1-year prevalence of obsessive-compulsive disorder is 1–2%, with a slightly higher prevalence in women.

18.2.3.3 Specific Information About Contact with Patients

Patients suffering from obsessive-compulsive disorder typically present with thoughts (images or emotions) that are intrusive, of negative content, and extremely disturbing, although the person knows they are not true. Prevalent thoughts are those of aggression, religion, infections, or sexuality (e.g., the patient fears that he will sexually attack a nurse). The person describes that these thoughts are extremely disturbing; the person tries to escape the thought and fears that somehow she/he will do what the thought says, although the person understands this is not true. The person recognizes the thought as his/her own thought and not as a foreign voice. The other aspects of the obsessive-compulsive disorder are the rituals, i.e., physical acts that a person does to undo something terrible. For example, a person must apply very specific and complicated set of movements every time he enters the bathroom, or otherwise, he will grow old and weak. Although the person recognizes there is no real, logical connection between the act and the consequence, the anxiety is so strong that he repeats the same set of movements to prevent the terrible outcome. Sexual themes are very often present in OCD patients because similarly to aggression and religion, sexuality is something that can easily produce feelings of guilt. Many OCD patients think sexuality (e.g., masturbation) is something dirty, unclean, and forbidden, and when they participate in such activities, later they need to undo the negative effects of it. One male patient described that every time he masturbated, later he needed to punish himself for this, either by eating huge quantities of food (to become fat and sexually undesirable) or by washing his body at least seven times to wash out all the dirtiness connected with the masturbation. Many OCD patients try to avoid sexuality altogether, just to avoid these very stressful feelings of guilt and distress. As OCD patients are strict and reveal no emotionality and try to control their emotions, they will rarely show their feelings towards the therapist. It is sensible, on the side of the therapist, also not to show much emotionality or intimacy towards the patients. The important element in OCD structure is the control, so the therapist should try to give patients as much control in the treatment of their disorder as possible.

18.2.3.4 Sexual Problems Typical for Obsessive-Compulsive Disorder

In cases when sexuality is part of the clinical picture of obsessive-compulsive disorder, these sexual symptoms are treated the same way as any other intrusive thought or ritualistic behaviour. The main methods of treatment of OCD are cognitive-behavioural psychotherapy (with some research showing that it is more effective in cases of ritualistic compulsions) and antidepressant medications (better results in cases of obsessions). In more severe cases, atypical antipsychotics are used. The same procedure will be effective when sexual symptoms are just a part of clearly recognizable OCD (e.g., a woman with an intrusive thought that

watching pornographic movies or touching her genitals is wrong and should not be done). As patients (in most cases) are aware that there is no real causal relationship between their fears and their symptoms (or behaviour), there is no need for going deeply into the content of their thoughts. It is better to try to talk with the patient about the thoughts themselves (not the content of the thoughts but about the existence of these thoughts and how they represent the pathological symptoms of their disorder). The therapist should explore the emotions that arise due to these thoughts (and again, without talking about the content of these thoughts) and ways of dealing with these emotions. Most patients with OCD have very negative emotions about sexuality. Many of them consider sexuality bad, dirty, and dangerous. Therefore, it is helpful to reassure patients many times that almost all people are sexual, that sexuality can be and in many people is an enjoyable part of their lives, and that it is OK to feel good about sexuality and have sexual feelings. As many patients consider the physician's office a safe place where nothing wrong will happen, this can also be the place where we can talk about sexuality and explore the fantasies they have, thoughts that arise related to sexuality. While listening to the patient, it is important to show him/her that we are not disturbed, offended, or disgusted with the content of his/her fantasies. Also, the therapist should show with his/her verbal and nonverbal communication that sexuality is an important, enjoyable, and normal part of human life. For example, one of the female patients with OCD said several times that she must cover her eyes with hands when there is some sexual scene in a movie, as these scenes are not to be seen by good women. The therapist continued to talk about female sexuality and what is expected from good women and what sexual thoughts, ideas, and wishes should a woman have. The therapist also said that both "bad" and "good women" have sexual fantasies, that "some bad and some good women do watch pornography," and that sexuality is just another biological drive, as the drive for food is. After several such sessions, the patient said she can accept that sexuality is not inherently bad and that she will try to watch some sexy scene for a few seconds, and if nothing happens, she will try to do it again, for longer.

A significant number of OCD patients also have doubts about their sexual orientation, not as a real sexual problem but as a part of their OCD. Typically, they start to question whether they are homosexual (if they in reality live a heterosexual life), usually not because they are attracted by some other same sex person but as a thought that just appeared in their mind. So they start checking whether they react to a same sex person with sexual arousal, and if they find any (no matter how insignificant) sign that this is the case, they are convinced that they have been cheating on themselves all the time. But, this kind of preoccupation is not in essence a sexual problem, or a problem of sexual orientation or gender identity, but is a core symptom of OCD. They are preoccupied with the idea and the thought and dwell on this thought, look at it for a long time, consider it, and suffer because of it but with no real intention of exploring their sexuality and sexual behaviour. Again, the therapeutic procedure should include open discussion about sexual thoughts, fantasies, and wishes but also showing the patient that it is the nature of the idea (i.e., it is intrusive, non-wanted, ego dystonic) that makes the patient suffer and not the content of

the idea. So, again, the therapy should go in the direction of dealing with the emotions that are aroused by such a thought, and not struggling with the idea itself.

Finally, the prevalence of orgasmic problems in both men and women is higher in patients with OCD, above 20% [11]. It seems that this is related to their unwillingness to masturbate, to attend to their sexual needs, and the avoidance of enjoying in sexuality and focusing on pleasure. Therefore, their stimulation is less intensive and less focused on pleasure, and they are not prone to experimenting, using sex toys, and exploring their and their partner's body. All of these lead to their stimulation not being strong or intense enough to reach orgasm. Also, they sometimes have negative thoughts of guilt, dirtiness, and disgust during sexual activity, which can also lead to lack of enjoyment and enough arousal. The treatment should be directed towards talking about sexuality, teaching them that sexuality is a crucial element of everybody's life, that sexuality is a normal component of one's life, and that there is nothing wrong in enjoying sex. Also, all the thoughts patients have related to their sexualities should be explored, along with all the negative emotional reactions they have, with suggestions how to deal with these reactions. They should be encouraged to try to focus on enjoyment, on experimenting with touch and use of sex toys, after teaching them some anxiety-reducing technique (e.g., progressive muscle relaxation, mindfulness, or breathing techniques).

Case Report 1

Mr. J. was a 45-year-old entrepreneur who contacted a sexual therapist because he was afraid he was actually gay but did not recognize that earlier. Mr. J. had been seeing a psychiatrist earlier for his OCD symptoms: he had many intrusive thoughts about getting some illness from contacts with other people. When somebody comes to his office, he would think for hours whether that person had some illness and whether he will get it because they spent time together. He is married and a father of three. He says his sexual drive has always been high and he had many female lovers. But, every time he had a sexual contact with a lover, he would not have another sexual activity for some time, until he would be sure he did not catch some sexually transmitted disease. In the meanwhile, he would masturbate daily. His OCD symptoms were ego-syntonic, and he did not want to take any drugs.

Now, he contacted a sexual therapist because he concluded that he might be homosexual. He actually said that he was not aroused by men or male body, but he is afraid something like that could happen. The trigger was a situation when he was watching a porn movie and he was aroused, and he is not sure if he was aroused by the male or a female actor. He explains that he is normally aroused by women, he never had any sexual contact with a man, and he would not like to have, but he is afraid he has been living whole his life as a fake heterosexual and that he might be homosexual by his nature, and 1 day he will discover his true self.

The therapy was focused on two themes. One was his intrusive thought that he is homosexual. It was explained to him that this is an intrusive thought and should be dealt with as such. He was taught techniques on how to deal with

obsessions. He was advised not to think about the content and not to dwell on the content but to try to fight the intrusive thought, not the content of the intrusive thought. The other area was discussion about his fears—why is it so awful to be homosexual, why would he think of himself differently if he was homosexual, and why he thinks homosexuality was something inherently bad and dirty.

The therapy took 26 sessions. He refused to take any medications. At the end of therapy, he still had doubts (i.e., short-lived obsessions), but he was able to take care of them. He also said that he liked the sessions which helped him look in a different way on some aspects of himself (not just sexuality but also some other traits of his).

18.2.4 Posttraumatic Stress Disorder

18.2.4.1 Clinical Description and Diagnostic Criteria

Posttraumatic stress disorder (PTSD) develops after a person experiences some terrible event that included the threat to the body or life of the person or somebody else (e.g., rape, physical attack, traffic accidents with wounded or dead people, earthquakes, etc.). The person has intrusive thoughts, images, or emotions related to the traumatic experience and tries to avoid any clues to the traumatic experience, negative emotional symptoms, and hyperreactivity.

Adjustment disorder, contrary to posttraumatic stress disorder, develops after stressful events that are not of the traumatic level (e.g., loss of job, divorce, moving to another place, etc.). After the event, the person develops emotional or conducts symptoms.

18.2.4.2 Epidemiology

The 1-year prevalence of PTSD is 0.5–3.5%, but it depends on the population, since different populations have different rates of exposure to traumatic situations. Among the traumatized population, one third to one half develops symptoms of PTSD, with the highest prevalence among victims of rape, war victims, and victims of concentration camps and genocide victims.

18.2.4.3 Specific Information About Contact with Patients

Patients with PTSD will ask for help after experiencing a traumatic life event but will sometimes contact a professional due to their sexual problems. They will present with uncomfortable and disturbing intrusions of trauma into their life. Also, patients try to avoid any reminder of the event—they avoid going to places that are similar to those where the event happened. The person also tries to avoid emotions that were felt during the trauma. Exposure to trauma produces strong physical (e.g., palpitations, tremor, increase of heart rate, and hypertensive reactions) and emotional distress (e.g., anxiety, apprehension, emotional pain). The person believes that they will never again be able to have happy feelings, love, or enjoyment. There are problems with sleep, concentration, and irritability. The

relationship with the partner is disturbed for many reasons. The person does not want to talk about the traumatic experience because she/he believes that nobody who did not experience the same thing cannot understand him/her (not even the closest friends or partners) and, on the other hand, does not want to disturb the partner talking about this terrible event. This leads to strains in the relationship, as the partner does not know what and why is the other person hiding. Also, due to irritability, tension, startle reactions, and feelings of no future love and enjoyment, the partners distance one from another and stop doing things together. Believing that there is no possibility of future happiness and love, some patients distance from partners (and children) on purpose not to "infect" the loved ones [12]. The therapeutic relationship with PTSD patients is very difficult at the beginning of the therapy as these patients will not allow the therapist "to come close to them"—for the same reason as they distance from their family members and partners (the therapist cannot understand them as she/he has not experienced the same thing they did and they are not good enough to be helped; they believe they destroy every person they come in contact with). The other problematic aspect of the therapeutic relationship will be the irritability and anger bursts in these patients, so they can be verbally aggressive and intimidating for the therapist, later apologizing for such outbursts. It is important that the therapist does not perceive these outbursts as personal, but just as a symptom of PTSD.

In treating sexual problems in PTSD patients, first it should be discussed if this is really a sexual problem or a manifestation of PTSD, in which case the usual treatment of PTSD should be considered (the clinician should have the similar train of thoughts in other anxiety disorders, too) [13]. When choosing antidepressants, we should keep in mind that many of them can worsen sexual problems [14] (see Chap. 24). PTSD and its influence on the relationship are explained to the partner. Every effort should be done to make their communication better and to explain to the patient that even though the partner, other family members, and the therapist did not suffer the same trauma, all of them can understand his/her pain and distress if she/he is willing to talk about it and explain the problems. The partners should find their shared interests (the patient will over and over again voice that she/he is not able to enjoy life and that she/he does not deserve to enjoy life, but the therapist and the partner should be calm and reassuring and tell the patient that even though such terrible things happened to him/her, every human being still have capacities and need for hobbies and pastimes). They can be advised to spend some time together in some activity they enjoyed doing before, when they were dating, before the trauma. After establishing the relations again, more specific sexual techniques can be employed. For example, a modified sensate focus exercises are a good start. Usually, it is started with only limited area of the body, since touch and smell can activate intrusive thoughts. So, partners are encouraged to find the kind of touch and the surrounding that will not produce distressing thoughts but that will lead to relaxation and sensual feelings. Only later, step by step, sexual exercises are introduced. Both should be advised to stop the exercises when negative feelings and emotions arise and to try to make the activity comfortable and enjoyable.

18.2.4.4 Sexual Problems Typical for Posttraumatic Stress Disorder

PTSD has a high prevalence of sexual problems [15]. Here we will focus only on PTSD after a non-sexual trauma, as a specific chapter is dedicated to sexual trauma (see Chap. 25). Specific sexual problems in patients with PTSD are erectile dysfunction (up to 85% of PTSD patients have ED), sexual desire problems (up to 63%), and vaginal pain. But, not only sexual dysfunctions are influenced by PTSD. These patients have fewer sexual fantasies, less foreplay, oral sex, and sexual intercourses [16]. Probably this is the result of some PTSD symptoms. Patients feel detached from the rest of the world (even the family members), their interactions with their partners are reduced, and there are more conflicts (they also have high irritability), which all lead to partnership problems and reduction in sexual activities. Also, these patients have the feeling they will never again have positive relations and feel love and intimacy, and for that reason, they also avoid sexual contacts. Among patients with PTSD, there is a high comorbidity of depression and alcohol use disorders, and both of these have higher rates of low sexual desire problems and erectile dysfunctions.

Case Report 2

Mr. I. is a 54-year-old man, married, with two adult children and two grandchildren. He lives with his wife and his mother-in-law. He retired a few years ago due to PTSD. He suffered a combat trauma: he was under the heavy attack, and seven of his friends died during a combat situation. He had to collect body parts and was wounded himself at the time. After the incident he developed symptoms of PTSD. Nowadays he lives a socially isolated life, with his wife and mother-in-law, and spends all his time at home. He had been taking some antidepressants, but he discontinued them because he was not satisfied with the results. He describes his sexual problems as follows: he and his wife haven't had sexual encounters for more than 7 years. He can see that his wife is dissatisfied, but he cannot bear to be touched by anyone, including her. He does not want to hold hands or to kiss her. He does not have sexual desire, does not masturbate, and does not have sexual fantasies.

The first question the therapist wanted to answer was whether this is really a sexual problem or just PTSD. To tackle this question, the therapist first tried to address his PTSD symptoms. The patient did not want to try drugs for PTSD, but after explaining him there are different antidepressants and that he will be allowed to stop them if he finds them unsatisfactory, he decided to give SSRIs a new chance. Also, he started psychotherapy focused on PTSD. His wife was invited to come to the sessions, and they were offered sensate focus exercises but in a highly modified way. They were advised to start with touching just the hands, and only him being active, because this would give him more control in terms of time and body area. Also, they were encouraged to start talking during the therapy session and were advised to spend some time together, 1 h every second day. One should propose three different activities, and the other one was able to choose one of the activities. In this way both had

some sense of control over their time and activities. After several sessions, they were advised to touch more of their arms and later to touch the rest of the body, excluding genitals. Only after 3 months of therapy did he agree to include the genitals. In the beginning he would stay silent during their time together, but after a while, he started to talk spontaneously. Five months into the therapy, they told the therapist that they had their first sexual contact. The therapist asked if sensate focus exercises were necessary any more, but both of them said they have great pleasure in these exercises, although they are not genital and not sexual, so wanted to continue with them.

18.2.5 Dissociative, Conversion, and Somatization Disorders

18.2.5.1 Clinical Description and Diagnostic Criteria

In dissociative and conversion disorders, there is loss of normal integration between the consciousness, identity, remembering past events, emotions, control of movement, and perception of the world. As a consequence, the person does not remember some aspects of his/her past, or have some convulsive-like state, or has some motor or sensory defects, with no neurological or other physical reason for such a symptom (conversion disorder) [17].

Somatization disorder is characterized with somatic symptoms in more than one organic system, and the person tries to do the medical work-up, although all the results are negative and do not show the development of some somatic disorder. Sometimes the main symptoms can be pain and aches in different regions and systems.

18.2.5.2 Epidemiology

Somatization disorder has a 1-year prevalence of 5–7%, while for conversion disorder, it is less than 0.5% [18].

18.2.5.3 Specific Information About Contact with Patients

Conversion disorder manifests with specific symptoms that resemble some somatic/organic disorder (general medical condition) but have no organic aetiologies. People with sexual problems have higher prevalence of conversion disorders—more than half of the people who attended a sexual health clinic had somatization disorders, 10% conversion symptoms mimicking neurological disorders, and 10% dissociative disorders [19]. Nevertheless, up to 30% also had pains and aches not explainable by organic causes. On the other hand, some authors also consider sexual dysfunctions to be the manifestations (or symptoms) of a conversion disorder [20]. Vaginismus (i.e., unwilling contractions of the muscles surrounding the vagina that prevent penetration) is a classical description comparable to other conversion symptoms that affect muscles [21]. In vaginismus, sometimes the same aetiology is considered as in conversion disorder (i.e., sexual abuse and

unacceptable sexual fantasies). Apart from vaginismus, anorgasmia and dyspareunia can also be conceptualized as conversion symptoms, as women with these sexual problems have higher prevalence of somatoform dissociation (which is a measure of dissociative symptoms).

Somatoform disorder is characterized with symptoms that come from different organ systems, so patients can present with different and divergent signs and symptoms—e.g., pain, nausea, vomiting, frequent bowel movements, breathlessness, chest pain, dysuria, vaginal discharge, pain in the limbs and extremities, numbness, etc. As part of these very different symptoms from different organ systems, sometimes patients complain about sexual problems, unpleasant sensations around their genitals, pain during or after coitus, etc. In cases of dysmorphophobia (body dysmorphic disorder), the person believes that part of his body is grossly disfigured or have some physical flaws (that other people consider irrelevant and small). These preoccupations can be of the appearance of the genitals (e.g., the size of the penis) (see Chap. 31). Men are more often preoccupied with their genitals than women. It is worth noting that in ICD, body dysmorphic disorder is classified among somatoform disorders, while in DSM it is classified as one of the obsessive-compulsive spectrum disorders. In both patients with conversion disorder and somatoform disorder, it is important that therapists convey the idea, although the physical cause of their problem cannot be found, and although it is believed that the cause of the symptoms is psychological, we still believe patients how much pain, suffer, distress, and disturbance these symptoms produce and that we do not consider them malingering the symptoms and that we believe them that the symptoms are real [18]. Usually, the patient needs much time to accept that his/her symptoms are of psychological origin.

18.3 Key Messages

- People with anxiety disorders have a high prevalence of sexual dysfunctions, and sexual dysfunctions can lead to anxiety problems. Therefore, it is important to take sexual history with every patient with anxiety problems.
- Anxiety can interfere with the management of sexual problems, and methods of reducing anxiety should be used in patients with sexual dysfunctions.
- People suffering from social phobia, panic disorder, and posttraumatic stress disorder can have not just sexual dysfunctions (of which erectile dysfunction is the most prevalent) but also problems with dating and intimate communication. Social skills learning can be an important part of the treatment of these patients.
- In cases of patients with obsessive-compulsive disorder and sexual problems, it is especially important to thoroughly assess differential diagnosis as sexual themes are often present in patients with obsessive-compulsive disorder (and are integral part of this disorder itself) and should be distinguished from sexual dysfunctions.
- In all the patients with any of anxiety disorders, communication issues and interpersonal relations can be influenced by the symptoms of the specific anxiety disorder.

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Eating Disorders

19

Annamaria Giraldi and Birte Smidt

19.1 Introduction

Eating disorders (EDS) are common terms for several mild to severe psychiatric conditions that particularly affect younger women. EDS are characterized by abnormal eating behavior and preoccupation with food, as well as prominent body weight and shape concerns. The disturbed body perception can be an intense fear of becoming fat or gaining weight, disturbances in the way body weight and/or shape is perceived, as well as a substantial impact of the body weight and/or shape on the person's self-esteem. The disturbed eating behavior may include restricted or impulsive eating and use of compensatory behaviors (i.e., self-induced vomiting, use of diuretic or laxatives, and excessive exercise). In most cases EDS are long-lasting and may show a chronic pattern, thereby having a substantial impact on the person's life [1].

Both in research and clinical work, little attention is given to sexual development and function in people with EDS, though many will experience sexual difficulties. The sexual difficulties may be related to the psychological characteristics of EDS as well to the physiological consequences of extreme low energy/nutrient intake. The present chapter focuses on the current knowledge on how eating disorders affect sexual function, etiological factors, and how to address sexuality in patients with EDS. Most patients with EDS are women and most research has focused on women with anorexia nervosa (AN). Consequently, the focus will be on women with AN, but data on other EDS and men will be presented when available.

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In the International Classification of Diseases 11th Revision (*ICD-11*) EDS are categorized, in Chap. 6 on mental, behavioral, or neurodevelopmental disorders, under feeding and eating disorders [1]. The most well-known and most prevalent are anorexia nervosa (AN), bulimia nervosa (BN), and binge eating disorder (BED). According to the ICD-11, these are characterized as shown in Table 19.1.

19.1.1 Prevalence of Eating Disorders

The prevalence of EDS varies between continents, genders, and sexual orientation. In a review by Galmiche et al. [2], they found that the weighted mean (range) lifetime prevalence of EDS can be estimated to be 8.4% (3.3–18.6%) for women and 2.2% (0.8–6.5%) for men. They showed a lifetime prevalence for AN of 1.4% for women and 0.2% for men, for BN 1.9% for women and 0.6% for men, and for BED 2.8% for women and 1.0% for men.

Looking at different regions, they found that the weighted means (range) for EDS were 4.6% (2.0–13.5%) in America, 2.2% (0.2–13.1%) in Europe, and 3.5% (0.6–7.8%) in Asia. In an American study using a nationally representative sample,

Table 19.1 *ICD-11* classifications of eating disorders [1]

Anorexia nervosa "is characterized by significantly low body weight for the individual's height, age and developmental stage (body mass index (BMI) less than 18.5 kg/m^2 in adults and BMI-for-age under fifth percentile in children and adolescents) that is not due to another health condition or to the unavailability of food. Low body weight is accompanied by a persistent pattern of behaviors to prevent restoration of normal weight, which may include behaviors aimed at reducing energy intake (restricted eating), purging behaviors (e.g., self-induced vomiting, misuse of laxatives), and behaviors aimed at increasing energy expenditure (e.g., excessive exercise), typically associated with a fear of weight gain. Low body weight or body shape is central to the person's self-evaluation or is inaccurately perceived to be normal or even excessive."
Bulimia nervosa "is characterized by frequent, recurrent episodes of binge eating (e.g., once a week or more over a period of at least 1 month). A binge eating episode is a distinct period of time during which the individual experiences a subjective loss of control over eating behavior, eating notably more or differently than usual, and feels unable to stop eating or limit the type or amount of food eaten. Binge eating is accompanied by repeated inappropriate compensatory behaviors aimed at preventing weight gain (e.g., self-induced vomiting, misuse of laxatives or enemas, strenuous exercise). The individual is preoccupied with body shape or weight, which strongly influences self-evaluation. The individual is not significantly underweight and therefore does not meet the diagnostic requirements of Anorexia Nervosa."
Binge eating disorder "is characterized by frequent, recurrent episodes of binge eating (e.g., once a week or more over a period of several months). A binge eating episode is a distinct period of time during which the individual experiences a subjective loss of control over eating behavior, eating notably more or differently than usual, and feels unable to stop eating or limit the type or amount of food eaten. Binge eating is experienced as very distressing and is often accompanied by negative emotions such as guilt or disgust. However, unlike in Bulimia Nervosa, binge eating episodes are not regularly followed by inappropriate compensatory behaviors aimed at preventing weight gain (e.g., self-induced vomiting, misuse of laxatives or enemas, strenuous exercise)."

it was found that sexual minorities (defining themselves as homosexual or bisexual) are of greater risk to develop EDS than people defining themselves as heterosexuals. They showed an approximate prevalence of AN of 1.7%, BN 1.3%, and BED 2.2% in the sexual minority group compared to 0.8%, 0.2%, and 0.8%, respectively, in the heterosexual group [3].

19.1.2 Risk Factors for Eating Disorders

Risk factors for EDS are multifactorial and include biological, psychological, and sociocultural factors as well as gender, ethnicity, childhood eating and gastrointestinal problems, elevated weight and shape concerns, negative self-evaluation, sexual abuse, and other negative experiences and general psychiatric morbidity [4, 5]. EDS and sexual problems share many risk factors, and the etiological factors involved in eating disorders may also lead to sexual problems, for example, sexual abuse, psychiatric comorbidity (anxiety, depression), and body dissatisfaction. Furthermore, EDS are influenced by puberty, sexual orientation, and gender identity, factors all known to interact with sexuality and sexual development.

Patients with EDS have a higher rate of comorbid psychiatric problems, especially personality disorders, uni- and bipolar affective disorder, and anxiety disorders [4], all conditions known to be risk factors for sexual problems [6]. Puberty is known to be a risk factor for development of EDS, especially AN. During puberty the body changes physically, and there are increased growth and adiposity which may lead to dissatisfaction with the body. At the same time, the adolescent is developing her/his sexuality, experiencing sexual feelings and desire for others, as well as becoming a sexual object for others, which may be influenced by the EDS. It is known that early age of onset of EDS can have severe medical and psychological consequences for the young person and impact their social life as well. Furthermore, if body dissatisfaction and concerns are prevailing during puberty, it may have a negative impact on the sexual development of the young person—a problem that can be carried on into adult life.

There are many ways to understand how EDS can be linked to sexuality. One way is the understanding that in EDS there is a fear of intimacy connected to the sexualization of women. This perspective is raised through sociocultural and feminist theory and explains that more women than men suffer from EDS, because of objectification of women in some cultures—meaning that the woman's value lies in being a desirable sexual object for the pleasure of others. Accordingly, women will evaluate their bodies through a process called self-objectification [7]. Self-objectification can lead to body shame, appearance anxiety, and EDS. If the woman is very concerned by her appearance during sex, she is cognitively distracted, and this is known to be a risk for developing sexual problems and is called spectatoring (i.e., the woman is surveilling her appearance during sex instead of being present in the feeling and pleasure). Since puberty is a risk factor for EDS, it has been suggested that disordered eating can be understood as a way to avoid sexual intimacy, maturation, and femininity [7]. It has been shown that women with EDS

experience their puberty more negatively than women without EDS. Furthermore, some studies have found that early puberty increases the risk of EDS, while others have not found such an association. It has been hypothesized that this increased risk of EDS is higher because the girl develops sexually earlier than their peers and therefore experiences physical changes earlier and may develop body dissatisfaction.

As it can be seen, both EDS and sexual problems have many biopsychosocial risk factors, and often it is not one factor that cause the EDS or the sexual problem, but an interaction between several biopsychosocial factors. Despite the overlap in risk factors for EDS and sexual problems and development, little attention has been paid to the sexual function of patients with eating disorders, and most existing data are from the Western world, cross-sectional, based on clinical samples, and on women [6, 8, 9]. Below we will describe sexual function and dysfunctions related to eating disorders.

19.2 Clinical Manifestations

19.2.1 Eating Disorders and Sexual Function

Relatively few studies have focused on EDS and sexual dysfunctions, but overall the existing studies show that patients with EDS (AN, BN, and BED) more often have sexual problems than controls, with some variations between the different EDS [6, 10]. The most prevalent sexual problem is reduced sexual drive/desire, which is associated with weight fluctuations but also influences other domains of sexual function such as arousal, orgasm, pain, and overall sexual satisfaction, frequency of attempts, and activity and sexual anxiety [6, 10]. Overall, women with EDS are in relationships less often compared to controls, and older studies have shown that among women with AN, 60–75% of them were not in a relationship during illness [8]. There are indications that they have a lower frequency of intercourse, also when they are in a relationship [11]. Castellini et al. showed that women with EDS (AN or BED) overall had more sexual dysfunctions than healthy controls at the same age [12]. Using the Female Sexual Function Index (FSFI) as a measure of sexual function, they showed that women with a clinical diagnosis of AN and BED scored lower on sexual arousal, lubrication, orgasm, and satisfaction domains and higher at the pain domain of the FSFI compared to healthy controls. In a study by Dunkley et al., it was shown that both sexual function (measured by the FSFI) and sexual distress were negatively associated with symptoms of EDS in a non-clinical sample of undergraduate women and that psychological maladjustment, a common psychological characteristic of EDS, was found to mediate the association between EDS and sexual function [13]. Pinheiro et al. found that almost two thirds of women with EDS reported loss of libido and sexual anxiety with the highest prevalence of libido loss among women with AN, and that loss of libido and

sexual anxiety were associated with lower minimum lifetime BMI [11]. Studies show the same sexual problems in women with BN but with a tendency to be less severe as compared with AN [9].

The impact of EDS on women's sexual function is illustrated in follow-up studies investigating long-term sexual function in women with AN. Overall, the studies indicate that sexual function in women with AN is correlated to how well they recover from their EDS [8]. This emphasize the importance of evaluating sexual function in women with EDS, as it may serve as a marker of how well the women are recovering from their EDS. In a 12-year follow-up study by Fichter et al., they showed that women who had recovered from AN were sexually similar to healthy controls, and that four factors were predictors of unfavorable 12-year outcome regarding AN: sexual problems, impulsivity, long duration of inpatient treatment, and long duration of an eating disorder [14]. The same pattern was shown in a 10-year-long follow-up study on women with AN by Eckert et al. who showed a trend toward better sexual adjustment accompanying EDS recovery [15]. A 1–3-year follow-up study by Castellini et al. found that in women with EDS, sexual function improved over time, but also that women who reported lower levels of sexual dysfunction were more likely to show signs of EDS recovery at the end of therapy [16]. It seems that women who have experienced childhood sexual abuse had more impaired sexual function at follow-up [14, 16]. These findings underline the importance of mental health-care providers to remember to address sexual health in the treatment of EDS, as it may be an important indicator of how well the person is recovering from the EDS.

19.2.2 Type of Eating Disorders and Sexual Function

It has been discussed whether different types of EDS may give different types of sexual problems and behavior as hypersexuality or sexual inhibition, but only few studies have addressed it. The focus is whether the personality profile of individuals with EDS will lead to specific EDS and specific sexual problems. The described studies indicate that women who have a restrictive eating pattern tend to have a more constricted/overcontrolled personality and consequently have sexual health problems related to being sexually restrictive and presenting themselves as non-sexual and childlike in appearance. The problems tend to be reduced sexual fantasy and drive and problems with orgasm, satisfaction, and arousability [9]. On the other hand, women with binge and purging behaviors have been described to have a personality being more emotionally dysregulated/undercontrolled and to have a more seductive sexuality with a more destructive, impulsive, and chaotic pattern, though they also describe problems with desire, orgasm, and arousal [6, 9]. The focus has been on impulsivity as a mediator of the relationship between pathological eating behaviors and a tendency to engage in sexual activity with strangers or in risky situations (for references see Ref. 6). Some studies found that there was an association between bulimic and purging behavior as excessive drinking and sexual

disinhibition (see Ref. 6) in patients with BN. It has been shown that patients with BN and AN binge/purging type had more partners that patients with AN (restricted type). Castellini et al. showed that women with AN purging type had greater sexual drive than patients without purging type and that among women with EDS, women with AN of the restricting type had lower FSFI score (lower function) than AN binge/purging type and BN patients [12]. Pinheiro et al. found that women with AN more often had loss of libido than women with BN or EDS not otherwise specified [11]. Though it is a clinical pattern recognized by many clinicians, we still need more studies investigating how different types of EDS influence sexuality in different ways. However, when addressing and treating sexual disorders in people with EDS, the clinician should consider and discuss with the person, how patterns regarding behavior, mind-set, and how to deal with emotional difficulties related to the EDS also may be reflected in the persons sexual life and may cause sexual dysfunction. This can focus on how binge eating can serve to deal with unpleasant feelings, which is similar in compulsive sexual behavior, or how a restricted eating pattern and a disturbed focus on how the body looks could inhibit sexual function.

Case Report 1

Anna is a 32-year-old woman with years of undiagnosed AN, who is referred for fertility treatment. She was born with phenylketonuria (PKU) and has been on a restrictive diet due to this. She has developed an anorectic and restrictive eating pattern during the last 15 years, but it has been undiagnosed, and she has explained it by the necessity of eating according to the PKU regime. She describes concerns about body shape and has a BMI of 17. Anna's upbringing was characterized by control, her parents' punitive attitudes, and she experienced her childhood with limited love and exchanges of emotions. Anna met her spouse in a sporting context (running club). They love each other but have minimal bodily contact, including actual sexual contact. He is frustrated about the sparse bodily contact. She describes anxiety, shame, and disgust about her body. When they have sex she never experiences orgasm and finds it difficult to relax during sex. Even talking about sexuality with therapists is almost impossible for her (getting stuck and having significant anxiety). There is no sexual abuse in the history.

Anna is treated for her AN and weight is recovered in treatment for AN. Afterward the patient and the spouse are offered couples therapy with a focus on developing emotional communication. It becomes clear here that the sexual encounter or lack thereof is the "elephant in the room." Anna is instructed to investigate her own body and to masturbate. The couple start sensate focus and gradually—and slowly—develop an intimate relationship with focus on intimacy, pleasurable touching, and intercourse.

19.2.3 Psychosexual Development and Eating Disorders

As EDS often start when the woman is young, it is relevant to explore how sexual development progresses if the person has EDS. A limited number of studies have evaluated sexual development and experiences of women with AN, including sexual milestones as intercourse, masturbation, and sexual attraction. The findings have not been clear. In an older study by Schmidt et al., they found that women with EDS experienced delays in many sexual parameters compared to controls, such as age at first kiss, masturbation, genital fondling, and intercourse. They report that women with AN, especially the restricted type, were less psychosexually developed before their illness compared to a control population, but also compared to other types of EDS. They showed that women with AN restricted type had less positive attitudes toward sex and a delayed age of first intercourse compared to women with AN binge or purging type (25 years versus 17 years) [17], a pattern that has also been shown in other studies. There is a lack of comparison to women with other psychiatric problems, which makes it unclear whether it is the EDS or the psychiatric problem that causes the differences [8]. In contrast, a small study by Raboch and Faltus found that sexual development in patients with AN was more accelerated than in controls [18]. Others found no differences on sexual experiences, satisfaction, and function [8], and Tuiten et al. showed that there was no difference in women with AN before illness onset but following the onset of AN, there was a significantly impaired sexual interest compared to healthy controls [19].

19.2.4 Weight Changes and Sexual Function

The effect of weight changes on sexual function has been discussed in several studies. Pinheiro et al. showed that lifetime weight in EDS was associated with loss of libido and sexual activity, and older studies have shown that the severity of weight loss is linked to the degree of decreased sexual function [10, 11]. However, newer studies have found no correlation between sexual function and BMI in AN and BN patients nor an association between improvement in sexual function and the degree of weight normalization. Interestingly, improvement in sexual function was found to be associated to the reduction of body uneasiness [16]. Another study has compared obese women with BED to a sample of obese women without BED and with a group of normal weight women. They showed that the obese women with BED had impaired sexual function compared to the other groups, describing more orgasmic problems, vaginismus, sexual avoidance, and less sexual satisfaction and overall sexual function, indicating that it was not the overweight itself that induced the sexual problems. This was supported by the finding that in BED worse sexual function was associated with high levels of emotional eating impulsivity and shape concerns in women [20].

The possible mechanisms behind the negative effects of weight changes and sexual functions are primarily thought to be mediated by changes in the hormonal environment that may impair the sexual drive. Most focus has been given

to disturbances in the sex hormones in AN with functional hypogonadotropic hypogonadism. This is caused by disruption of the pulsatile release of gonadotropin-releasing hormone (GnRH) from the hypothalamus. This has been found to cause amenorrhea in up to 80% or oligomenorrhea in up to 10% of women with AN. But also, in women with BN, studies have shown that up to 60% of patients report oligomenorrhea [10]. Less focus has been directed toward women with BED and even less on men with BED. In addition to the negative impact of being overweight on sexual function, obesity-related gonadal dysfunction and metabolic syndrome are often seen in patients with BED. It is well-known that metabolic syndrome and hormonal changes in late-onset hypogonadism impair sexual drive, and cardiovascular changes are risk factors that may impair genital function. These changes are most pronounced in men who develop erectile dysfunction, but may also impair the genital response of women [6, 9]. Therapeutically, restoration of a healthy weight is the best intervention for amenorrhea in women with AN and in obese men for restoration of gonadal function and metabolic syndrome reduction. Interestingly, it has been shown that in obese patients bariatric surgery improved sexual function—which may be through the restoration of normal hormonal levels as well as improved body image (for references see Ref. 10).

19.2.5 Body Image and Sexual Function

Body image can be described as how you perceive your body. Body image distortion and body shape concerns are crucial elements of EDS in both under- and overweight patients. Body image distortion can be defined as "a condition where the person is unable to see himself or herself accurately in the mirror and perceives features and body size as distorted." Body image problems are known to play a role in sexual function as a negative body image can inhibit sexual function. In a study by Ackard et al., they found that women who were more satisfied with their body image had more sexual activity and orgasms and were more likely to initiate sexual activity than woman dissatisfied with their bodies [21]. In both healthy women and women with EDS, body dissatisfaction has been linked to lower sexual satisfaction and higher levels of sexual dysfunctions, and a higher thrive for thinness has been associated with greater sexual impairment [22]. When correlating to variables characterizing the EDS, Castellini et al. found that shape concerns were associated with lower sexual score in the AN restricting type, whereas emotional eating and subjective binge eating were associated with lower sexual scores in the AN binge eating/purging type and BN patients [12]. Interestingly, Castellini et al. found that in a non-clinical sample of women, dysfunctional body image esteem and a tendency toward binge eating behavior were associated with greater sexual distress in women. Furthermore, they showed that negative body esteem was associated with greater dissociation during partnered sex [23].

Case Report 2

Peter is a 19-year-old man who is referred and admitted to inpatient unit after rapid weight loss over 3–6 months where his BMI went from about 25 to 16.

When admitted he is preoccupied to the thoughts that his body looks like a woman, fat distribution is feminine, and therefore he started to lose weight. His eating pattern has become restrictive with low intake of energy as well as increased exercise in the fitness center, in order to develop a masculine body shape. He was stereotypically preoccupied with his own abilities as a male in a sexual context, seems overwhelmed by participating in real life, and has no contact with girlfriends. Socially he is characterized by lack of schooling and education and difficulties in maintaining unskilled work. He lives at home, and is described as having an IQ in the lower range. Peter is first treated with focus on weight gain. With increasing weight and confidence, especially in the contact with male staff in the hospital unit, Peter agrees to talk about sexual inability and accepts an examination of his genitalia, which he refused having done before. This shows micro testes and the penis is considered normal size. Chromosome tests are performed and Peter is diagnosed with XXY (Klinefelter syndrome). He is referred to the andrologists and starts treatment with testosterone. This results in more muscles, less fat, and a more masculine body shape which he is very satisfied with. Normal weight is achieved. Outpatient treatment including psychotherapy is difficult due to persistent immature features and limited insight into own difficulties. Peter is offered a PDE-5 inhibitor as he describes performance anxiety when thinking about having intercourse. Peter is offered consultations with a sexual mentor and educator. The sexual mentor and educator psychoeducates Peter about sex, the connection between being nervous and then losing the erection, and how sexual interaction can include behaviors other than intercourse. They discuss how he can start flirting and how to approach women. After 6 months Peter meets a woman at the school where he has started. He is very anxious in the beginning, but manages to tell her about him being nervous, and with the support of PDE-5 inhibitor treatment, he is able to have intercourse.

19.2.6 Sexual Abuse, Eating Disorders, and Sexuality

Several studies have established that there is a significant association between sexual abuse and a lifetime diagnosis of EDS, to the same degree that sexual abuse is associated with depression [24]. Most studies have focused on childhood sexual abuse (CSA) and EDS [6, 24]. In addition to sexual trauma, CSA may also be combined with other risk factors such as physical and emotional neglect which also may cause psychiatric problems and have a severe impact on the child's development, thereby increasing the risk for EDS. CSA may cause low self-esteem, depression, and body image distortion as well as problems with emotion regulation. This may

lead to problems in coping with negative mood states, which again can result in psychopathological outcomes associated with EDS, such as self-harm or suicide. Low self-esteem induced by CSA may trigger self-starvation in order to regain control over own life, and it can have a negative impact on sexual maturation. The person may feel disgust about their own body and have concerns about body shape, weight, and size which can lead to EDS. In a longitudinal study by Sanci et al., they found that two or more episodes of child sexual abuse before the age of 16 years would predict a fivefold increased risk of bulimic syndrome during adolecence [25]. In a study by Castellini et al., they showed that in a group of both men and women with EDS, those who had experienced CSA had higher impulsivity, psychiatric comorbidity, and lower full recovery at follow-up compared to those who had not experienced CSA. Those who had experienced both CSA and neglect had a higher dropout rate from treatment [26]. These data support the importance of addressing sexual abuse in patients presenting with EDS as it has an impact on the severity of EDS as well as adherence to and effect of treatment. CSA is also an example of shared risk factors for EDS and sexual problems. When experiencing CSA, the normal sexual development of the child/adolescent is interrupted, and clinical studies show that about half of individuals who have been sexually abused as children will develop sexual dysfunctions, a risk that is increased with comorbid psychiatric problems and PTSD [27, 28].

19.2.7 Sexual Orientation, Gender Identity, and Eating Disorders

As described in the introduction, there are indications that non-heterosexual men (men defining themselves as homosexuals or bisexuals) have a higher risk of developing EDS [29]. In a study by Gigi et al., they showed that homosexual and bisexual men had higher level of disordered eating and body dissatisfaction than heterosexual men and that they were more susceptible to social messages and advertisements focusing on physical appearances [30]. Men identifying as homo- or bisexual have been shown to have more concerns about shape (higher desire for tone and defined muscles) and weight and greater binge and anorectic eating patterns [31]. Several explanations have been given for these observations. One is the Minority Stress Model, which suggests that as sexual minorities they experience more discrimination and stress and therefore are more prone to develop EDS. The more dominant explanation is the sociocultural explanation that there is more focus on physical appearance in the gay culture and that gay men like women are more influenced by the norms about a lean and attractive body which lead to EDS as it is seen in women. The mechanisms discussed previously in the objectification theory may therefore also apply to homosexual men. Less evidence is found in homosexual and bisexual women.

Even fewer data exists on transgender (TG) people and many studies are case studies [6]. TG people often experience a physical body that is in contrast to their self-perceived gender identity, and consequently they often experience a high level

of body dissatisfaction which may predispose to eating disorders. In a study by Bandini et al., they showed that TG people (transmen and transwomen) had a high level of body uneasiness which was higher than in patients with EDS [32]. In a study by Vocks et al. on 88 transwomen and 43 transmen, they found that transwomen displayed a higher degree of restrained eating, weight concerns, shape concerns, body dissatisfaction, and body checking compared to cisfemale controls and speculated that this may be due to the discrepancy between the transwomen's larger biological "male shape" and the ideal thinner feminine figure. In transmen the results indicated a higher degree of restrained eating patterns, weight and shape concerns, body dissatisfaction, and body checking behavior compared to cismale controls [33].

19.3 Clinical Management

Treating sexual dysfunctions in people with an eating disorder may pose a challenge, as they can have specific problems as described in this chapter. The treatment needs to be modified depending on the needs of the individual person. It is important to recognize that treatment of sexual problems in patients with EDS may take longer time. It is also important not to push the person to the next step of the treatment before she/he is ready. As in all other assessments and treatments of sexual dysfunctions, the focus is on the sexual history taking and, in treatment, on sexual pleasure, intimacy, and broadening sex to be more than intercourse. Below are some of the important factors to consider—but it is important that all treatments should be adjusted to the individual patient.

19.3.1 Assessment

In the assessment it is important to consider whether the eating disorder is in a stable phase. It is difficult to work with the person's sexuality if she/he is not in a stable stage. The person needs to be stable in order to have the physical health and the psychological stability and energy to focus on working with her/his sexuality.

It is also important to consider and explore:

- If lab tests are necessary (hormones and overall health markers).
- If there are physical problems that need to be addressed.
- If the person has comorbid psychiatric problems that need to be treated (e.g., depression) or is on psychopharmacological medications that may affect sexual function.
- If the person has experienced sexual abuse.
- To discuss the treatment goal with the patient and when an important difference is achieved. It may not be intercourse that is the goal, but maybe to feel better about the body during sex, being more intimate with partner, reaching an orgasm, or other aspects that will make a positive difference for the patient.

- What is sexual pleasure and experiences for the person.
- How is the person's body image.
- If the EDS has been an attempt to avoid sexual pleasure or if it is a substitute for something else. Is there guilt or shame?
- What is the person thinking about sex and what role does it play in the person's life.

19.3.2 Treatment

The treatment needs to be individualized and several approaches can be followed and combined. They can include the following:

- Psychoeducation of the patient about sex and sexuality.
- Discussion of sexual response patterns, myths, cultural norms, and how EDS may have an impact on sexuality.
- Exercises that instructs the patient in discovering their own body. Simple practices that focus on discovering and feeling their own body in a non-judgmental and non-sexual way are a good start to becoming relaxed in intimate and sexual situations.
- When the patient is ready for masturbation exercises, exploration of own sexuality and sexual organs can be introduced.
- When the patient has the confidence and feels safe, sensate focus can be introduced for the couple if the patient has a partner.
- Key Messages The individual person's relationship to and perception of own body are strongly connected to one's sexuality.
- It is important to take into consideration that there is a high overlap of eating disorders and sexual problems.
- Sexual dysfunctions experienced by people with eating disorders represent all phases of the sexual response: desire, arousal, orgasm, and pain.
- Eating disorders and sexual dysfunctions share many risk factors.
- It is important to address sexuality when working with patients with eating disorders.
- It is important to consider a possible eating disorder and restrictive eating when treating people with sexual problems.
- By addressing sexuality in persons with eating disorders, one can provide a better treatment.
- Sexual function may be an indicator of how well the person is recovering from the eating disorder.
- It is important to be aware that sexual abuse is a common risk factor for eating disorders.

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Sleep Disorders

20

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20.1 Introduction

Sleep is the physiological state of the nervous system that allows for the regulation of a number of life functions. Adults spend nearly 30% of their life asleep.

Despite many decades of the scientific debate linking sleep disorders and sexual dysfunctions, it is still poorly understood how sleep and sexual functioning influence each other. The founder of psychoanalysis—Sigmund Freud—in the early years of the twentieth century suggested a close relationship between sexual dysfunctions and sleep disorders in his work *Interpretation of Dreams*. He pointed out that the attenuation of the physiological manifestations of libidinal energy can cause neurotic reactions and, among them, disturbed sleeping, or insomnia [1]. The phenomenon of "hysteria" which was widespread among women was often discussed in the literature of the nineteenth century. According to those publications, hysteria could be manifested in a wide range of symptoms and among them "weakness, nervousness, excessive sexual desire, insomnia, shortness of breath, lack of appetite, and a decreased libido" [2].

In modern neurophysiological studies, the relationship between physiological sexual responses and sleep stage has been confirmed. It was found that during rapid eye movement (REM) sleep, the brain bioelectric activity (electroencephalographic activity—EEG) is no longer dominated by slow waves; rather it resembles the EEG

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of active wakefulness. During REM sleep tachypnea, irregular breathing, increased heart rate, and rapid eye movements under closed eyelids are observed. Also, during REM sleep, signs of sexual arousal (respectively, penis erection in men and increased vaginal lubrication and erection of clitoris in women) can be observed. Genital arousal during REM sleep has no connection to the presence or absence of sexual dreams. Studies of cyclic sexual responses during sleep were conducted beginning in the 1970s. They were concentrated on searching for the links between sleep stages determined by EEG and erections of the penis or clitoris, in order to detect the variety of vegetative function changes during sleep. Physiological reactions of the body during sleep are also recorded by means of the plethysmography (in women—clitorography and colpography), electroencephalography, electrocardiography, electrooculography, electromyography, respirography, and electrodermatography. The most important observation from the pioneering research by Fisher et al. was that spontaneous erections occurring during sleep begin and end in close temporal association with the REM sleep, and their intensity and frequency are not dependent on the frequency of prior sexual contacts or the duration of the period of sexual abstinence prior to polysomnographic recording [3].

The morning erections observed in men reflect the genital arousal corresponding to the last stage of REM sleep. This phenomenon coincides with the peak of the circadian rhythm of secretion of androgens. The serum concentration of androgens is highest in the morning and the lowest in the evening, with a difference of about 30%. So, rhythmic physiological changes in genital reactivity occurring during the nocturnal sleep correspond both to the rhythmic electrophysiological changes and reflect the rhythm of hormonal cycle.

The recent publication of the third edition of the *International Classification of Sleep Disorders* (ICSD) by the American Academy of Sleep Medicine [4] represents another step forward in the evolution of the nosology of sleep disorders. According to this classification, seven sections of sleep disorders are distinguished (Table 20.1).

Among a number of disorders co-occurring with sleep disturbances, sexual dysfunction in this context seems to be the least understood, despite the fact that the coexistence of both groups of disorders is very common. In a study of patients referred to the Sleep Medicine Center at the Institute of Psychiatry and Neurology in Warsaw, about 30% rated their sleep disorders as not affecting sexual functioning at all; 30% and 26% rated that their sexual functioning is slightly or moderately

Table 20.1 Major diagnostic sections of international classification of sleep disorders (ICSD-3) [4]

Section
Insomnia
Sleep-related breathing disorders
Central disorders of hypersomnolence
Circadian rhythm sleep disorders
Parasomnias
Sleep-related movement disorders
Other sleep disorders

impaired, respectively; and 12% claimed that the sleep disorder significantly affected or completely prevented their sexual functioning [5].

In this chapter we will present clinical cases of patients suffering from insomnia, obstructive sleep apnea (OSA), and sexsomnia as the sleep disorders mostly related to disturbances in sexual functioning. However, also other sleep disorders may be the reason for seeking the professional sexologist's advice. The clinical symptoms and the most important sexual issues related to sleep-related movement disorders, circadian rhythm sleep-wake disorders (CRSWD), and central disorders of hypersomnolence will be also briefly characterized.

20.2 Clinical Manifestations and Management

20.2.1 Insomnia

Insomnia is among the most prevalent health complaints, with approximately 10–15% of the general population suffering from chronic insomnia and about 25–35% presenting its transient or occasional types [6]. It is defined as a difficulty falling asleep or staying asleep, even when a person has the chance to do so. People with *insomnia* usually feel dissatisfied with their sleep and experience one or more of the following *symptoms*: fatigue, low energy, difficulty concentrating, mood disturbances, and learning or occupational difficulties.

The ICSD-3 criteria for insomnia disorder include:

1. A report of sleep initiation or maintenance problems
2. Adequate opportunity and circumstances to sleep
3. Daytime consequences

The short-term insomnia lasts for less than 3 months and is related in time to an identifiable cause (psychological, physical, environmental). The diagnosis of chronic insomnia requires the duration of symptoms of at least 3 months and the frequency at least 3 times/week, while the trigger is difficult to identify [7, 8].

Primary insomnia is the psychophysiological state of the difficulties of falling asleep or maintaining sleep, while the secondary insomnia is caused by the other mental (i.e., affective or anxiety) disorder, medical condition, or other sleep disorder (e.g., restless leg syndrome, OSA). Decades of research have identified hyperarousal (nonsexual) as the key physiological factor related to chronic insomnia, but underlying mechanisms remain elusive. The hyperarousal can result from an inadequate resolution of emotional distress. Its accumulation may promote the development of chronic hyperarousal [9] and probably negatively affects the regulation of the sexual response. Risk factors of insomnia include female gender, advanced age, presence of chronic disorders, lower income, poor sleep environment, bad sleep hygiene, and lifestyle habits (e.g., low physical activity).

Though insomnia is not associated with specific complaints concerning sexual functioning, daytime activities and sexual activity of people suffering from

insomnia may be strongly influenced. It makes it difficult for an individual with insomnia to perform well at work or to carry out their usual daily tasks. The irritability associated with sleep deprivation can cause problems in a person's social and personal life, often affecting those close to the sufferer. It can make relationship maintenance difficult and also (indirectly) influence sexual activity of the couple.

For most adults, sleep is a dyadic issue. Some studies explored the dynamic association between sleep and relationship functioning among bed partners. Male and female circadian rhythms differ. Men have a circadian cycle that is 6 min longer than in women. It means that they may feel less tired in the evening. In women, the internal clock is more likely to be shorter than a full 24-h cycle, making it more likely that they will awaken earlier, which may also increase their susceptibility to early-waking sleep disturbances like insomnia. The bidirectional associations between changes in insomnia severity and changes in marital quality over time were observed. In couples participating in marital therapy, improving sleep may be an added benefit of improving the marital relationship. Among husbands, improvement of marital satisfaction was associated with a 36% decreased risk of insomnia at follow-up [10].

The older literature on sleep and female sexuality is limited to studies on REM sleep and nocturnal vaginal vasocongestion. More recent studies explore the role of hormones in sexual function and sleep and sleep-disordered breathing (e.g., OSA) as a risk factor for sexual problems [11]. Contemporary research suggests that short sleep duration and poor sleep quality lead to poor female sexual response. Kalmbach's study examined the influence of nightly sleep duration, sleep quality, and sleep onset latency on daily female sexual response and activity [11]. The results from this longitudinal study of 171 women free of antidepressants suggest that obtaining sufficient sleep is important to the promotion of healthy sexual desire and genital response, as well as the likelihood of engaging in partnered sexual activity. These relationships seem to be independent of daytime affect and fatigue. Future directions may investigate sleep disorders as risk factors for sexual dysfunction.

Specifically, chronic insomnia disorders as a whole are typically associated with maladaptive cognitions and behaviors that represent major perpetuating factors. Worrying about sleep loss and its potential negative daytime effects is frequently present and increases the physiological arousal and distress. The abovementioned mechanisms are similar to those accompanying psychogenic erection disorders when the worrying about the loss of erection causes the performance anxiety and the activation of the sympathetic nervous system. These cognitive mechanisms must be addressed therapeutically to achieve a successful long-term outcome. Beyond the clearly important management of comorbid disorders such as major depression or chronic pain, treatment approaches to chronic insomnia are essentially the same (i.e., cognitive-behavioral and/or pharmacologic), regardless of the presence or type of comorbidity [7]. According to the current guidelines of American Academy of Sleep Medicine, the pharmacological treatment of chronic insomnia covers orexin receptor antagonists (suvorexant), hypnotics (eszopiclone, zaleplon, zolpidem), and short-acting classical benzodiazepines (temazepam, triazolam) and with lower degree of certainty in the outcome: sedative antidepressants (doxepin) and

melatonergic drugs (ramelteon) [12]. In case of comorbid anxiety and depressive symptoms, insomnia treatment with antidepressive drugs (agomelatine, doxepin, mirtazapine, trazodone) instead of hypnotics is more beneficial. However sexual side effects of some antidepressants have to be considered (for more details, see Chap. 24).

The constitutional increased of sympathetic nervous system activity in patients suffering from insomnia can be relieved by successful sexual intercourse followed by the experience of orgasm. That results in a parasympathetic discharge connected with psychological and physical relaxation and promotes sleep. From physiological studies, it is known that the experience of full cycle of sexual response—with the refraction phase—induces a state of relaxation (especially in men), whereas the persistent excitation of the sympathetic nervous system with the sense of discomfort if the sexual contact is not completed with orgasm can lead to a persistent arousal state (especially in women). For this reason, it can be assumed that some factors concerning sexual behavior or some sexual dysfunctions may also be classified as factors causing insomnia. Considering the high prevalence of sleep disorders and sexual dysfunctions, the prevention of problems associated with inadequate sleep hygiene and the promotion of satisfactory quality of sexual life seems to be not only a medical intervention but belong to important priorities for the public health of modern societies [13].

For Sexual Medicine Practitioners:
Symptoms of insomnia are common in many medical and psychiatric conditions. A diagnosis of chronic insomnia disorder is justified when coexisting mental disorders and medical conditions do not adequately explain the predominant complaint of insomnia. The constitutional increase of the sympathetic nervous system activity could be responsible for both insomnia and sexual dysfunctions. For that reason, insomnia patients should be screened for mood and anxiety disorders as well as the coexisting sexual dysfunctions. The treatment of insomnia-related sexual dysfunctions requires the stabilization of the underlying mental disorder or medical condition and sexual therapy if needed.

Case Report 1
The 34-year-old patient referred for psychiatric/sexological consultation due to the symptoms of chronic insomnia, erectile dysfunction, and performance anxiety. He was single but trying to engage in a new relationship. In the initial phases of his two previous long-term relationships, he presented very similar symptoms. Previously he was using sildenafil citrate for several months to prevent the loss of erection during sexual activity with a new partner and to reassure his self-confidence in the field of his sexual performance.

He presented at the office with the symptoms of long-lasting anxiety and depressed mood, though he was complaining just of severe insomnia and erectile dysfunction that occurred in the context of his sexual activity in the new relationship.

The psychiatric and sexological examination revealed a depressed mood that persisted for several years with the intensification of depressive ruminations concerning both the symptoms of insomnia and the erectile problems in the last several months. He was never previously seen by a psychiatrist. The symptoms of depressed mood seriously influenced his sexual response with reduced libido and subjective arousal and erectile dysfunction. Despite the unsatisfactory mental state, he tried to get involved in a new relationship and get engage in sexual activity without sufficient sexual desire. An inadequate sexual arousal resulted in erectile dysfunction.

The physical exam and laboratory testing were normal. The patient was diagnosed with dysthymia, non-organic sleep disorder (insomnia), and secondary erectile dysfunction.

He was offered the treatment with trazodone (max dosage 150 mg) and sexual therapy focused on the reduction of the obsessively high expectations toward his sexual performance. The patient was also encouraged to carefully observe his sexual desire and engage in sexual activity only if a noticeable sexual need is present. In the further 5 months, the patient's mood stabilized, and he was more prone to engage in sexual activity. He is still continuing the CBT treatment addressed to both types of false beliefs (concerning insomnia and erection problems).

20.2.2 Obstructive Sleep Apnea

Obstructive sleep apnea (OSA) is a disorder characterized by repetitive cessations of breathing due to a collapse of the upper airway during sleep. It is associated with clinical symptoms such as fatigue, increased daytime sleepiness and concentration difficulties, loud snoring and abrupt awakenings related with breathing cessations, headaches, depressive mood, irritability, etc. More recently, OSAS is also being recognized as a causative factor of sexual dysfunction.

In the USA estimates show an overall high and age-increasing incidence of sleep-breathing disorders with moderate to severe disorders (apnea-hypopnea index, AHI $\geq$ 15) ranging from 10% of men and 3% of women aged 30–49 to 17% of men and 9% of women aged 50–70 [14]. Predisposing factors other than age and sex are overweight (increased fat deposits around the upper airway), narrowed airway (enlarged tonsils, adenoids, etc.), chronic nasal congestion, brain injury, and neuromuscular disorders. OSA is also more common in people suffering from hypertension, diabetes, asthma, and smokers. The symptoms may be additionally exacerbated when sleeping in supine position and by the use of alcohol, sedatives, or other drugs that relax upper airways.

Observational studies provided some evidence of the relationship between OSA and increased risk for both male erectile dysfunction (ED) and female sexual dysfunction (FSD). According to a meta-analysis by Liu et al., pooled relative risk (RR) was 1.82 (95%CI: 1.12–2.97) for ED and 2.00 (95%CI: 1.29–3.08) for FSD in individuals with OSA [15]. In 401 males undergoing polysomnography for suspected OSA, twice-as-high prevalence of ED was found in OSA-confirmed vs. non-OSA individuals (68.8% vs. 34.4%, respectively), and the level of sexual dysfunction was related with the severity of OSA measured by the AHI and blood oxygen saturation (SaO_2) [16]. In one study of women with OSA, the use of psychopharmacological medications, rather than the severity of apnea, was related with more sexual dysfunction [17]. OSA is recognized as an independent risk factor of arterial hypertension, diabetes, endothelial dysfunction, and decrease in testosterone levels in men, which are all known as conditions related to sexual dysfunction (SD). A possible mechanism behind the relationship between sleep apnea and cardiovascular, metabolic, and hormonal disorders as well as SD is the oxidative stress related to chronic intermittent hypoxia and impairment of the hypothalamus-pituitary-gonadal axis. This is in particular important for ED in men. Moreover, the deficiency of the REM periods results in decreased nocturnal erections supporting penile tissue oxygenation which normally supports the maintenance of erectile function.

Continuous Positive Airway Pressure (cPAP) is currently seen as a first-line treatment in OSA. Other therapies include surgery (uvulopalatopharyngoplasty and maxillomandibular advancement) and use of mandibular advancement devices (MAD). The best evidence of the improvement of erectile function in OSA patients has been documented for the combination treatment including cPAP and oral phosphodiesterase-5 (PDE-5) inhibitors. Results from a lower-quality, non-randomized study of the surgical treatments in OSA suggest moderate improvements of erectile function, while benefits of the use of MAD were not demonstrated yet [18, 19]. Also, the effects of OSA treatments on sex hormones have not been evidence-supported and need further investigation. The impacts of OSA treatments on female sexual functioning are poorly studied, and the results remain conflicting (evidence for the stable improvement in overall sexual functioning but not for particular sexual function during cPAP treatment was demonstrated in a non-controlled, non-randomized clinical trial) [20].

For Sexual Medicine Practitioners:
It is important to screen patients suffering from sexual dysfunction for OSA in a simple way by asking questions about sleep quality, snoring, and daytime performance. Screening for OSA can be also easily performed with the use of simple validated questionnaires like STOP-BANG, NoSAS, and Berlin questionnaire. In case of identifying the OSA clinical symptoms and risks factors (f.i. snoring, obese, hypogonadal men with erectile dysfunction), patients should be referred for polysomnographic testing. In men with ED and OSA, cPAP and surgical treatments may be beneficial for their sexual function when successfully accompanied by the use of PDE-5 inhibitors.

Case Report 2
A 50-year-old male was referred to a sexologist due to progressive decrease in erectile function and sexual desire for more than 3 years. The patient was treated for arterial hypertension, well-controlled. Additional complaints were fatigue and irritability which were considered by the patient as possibly related to stressful job and his reaction to sexual difficulties. His BMI was 28 kg/m^2. When asked, he acknowledged that his wife often complains about his loud snoring and therefore prefers sleeping in a separate bedroom.

The patient was referred for routine blood tests (total testosterone in lower quartile, mild dyslipidemia) and exercise test (normal). Polysomnography was also advised, but the patient did not make it initially. Erections were improved on a satisfactory level with tadalafil 5 mg/day. After several reminders, the patient finally completed the polysomnographic testing almost 1.5 year later.

The findings were 195 apnea episodes during 8 h sleep, mean apnea time 30 s, and the longest 1:21 min, AHI 46.1. The patient was diagnosed with severe OSA syndrome, promptly started cPAP treatment and was referred to an otolaryngologist. After 3 months of cPAP treatment, a significant improvement in sleep quality, physical fitness, mood, and increased sexual desire was reported. Patient still used tadalafil to improve erections, but he could decrease the dose to 2.5 mg maintaining the efficacy of the medication.

20.2.3 Circadian Rhythm Sleep-Wake Disorders

Circadian rhythm sleep-wake disorders (CRSWD) are defined as sleep disorders caused by alterations of the circadian rhythm, its entrainment mechanisms, or a misalignment of the endogenous circadian rhythm and the external environment. The CRSWD are divided into intrinsic (endogenous) and extrinsic, caused by external factors. In intrinsic CRSWD circadian sleep rhythm is significantly delayed (delayed sleep-wake phase disorder, DSWPD), advanced (advanced sleep-wake phase disorder, ASWPD), irregular (irregular sleep-wake rhythm disorder, ISWRD), or non-entrained to the 24-h light-dark cycle (non-24-h sleep-wake rhythm disorder, N24SWD). Extrinsic include shift work disorder, caused by work schedules that overlap the usual time for sleep, and Jet lag, caused by rapid change in time zones.

DSWPD disorder is the most prevalent intrinsic CRSWD that affects mostly adolescents and young adults, with a reported prevalence of 7–16%. On the contrary, ASWPD can be found first of all in older people over 60 years. Its prevalence in the general population is estimated at 1%. ISWRD is mostly related to neurodevelopmental and neurodegenerative disorders, and N24SWD is typical for blind people, with reported prevalence of 50–70% in this population. The prevalence of shift work disorder among shift workers is estimated to be between 10% and 38%; it results in 2–5% prevalence of SWD in the general population [4, 21].

The diagnostic approach of CRSWD is based on careful clinical interview and diagnostic methods to assess circadian sleep rhythm. Each patient suspected of CRSWD should be asked to keep a sleep diary or sleep logs for at least 14 days, including at least 2 weekends or other work-free days. When available actigraphy can be also used. Other assessment methods include rating scales that describe the circadian sleep rhythm and circadian preferences. Most frequently used scales are Morningness-Eveningness Questionnaire (MEQ), Composite Scale of Morningness (CSM), and Munich Chronotype Questionnaire (MCTQ). Objectively circadian rhythm can be evaluated by the measurement of the onset of melatonin secretion in the dark (dim light melatonin onset, DLMO), daily changes in the concentration of 6-sulphatoxymelatonin (aMT6s) in the urine, and the circadian rhythm of a core body temperature.

CRSWD may have strong negative effects on quality of sex life, because daily circadian preferences regulate many areas of life, including preferred time for sexual intercourses.

Sharing the bedroom with a partner with a different chronotype (different circadian rhythm) not only negatively influences the quality of sleep but can also have a negative impact on the frequency of sexual contacts, overall satisfaction with sexual life and the relationship. It is especially problematic when one of the partners (mostly male) because of delayed sleep rhythm stays active long in the night and disturbs his partner's sleep with his activity. Frequently subjects with DSWDP feel a sexual desire and initiate a sexual activity at a late hour, when the partner is already drowsy and tired and therefore rejects it.

The most effective methods of CRSWD treatment are melatonin administration and light therapy. Behavioral interventions are also highly recommended, for example, patients with DSWPD are asked to get up at the same time in the morning, even on days when they are away from school and work, to spend as much time as possible outdoors or in brightly lit rooms in the morning, to avoid being in brightly lit rooms in the evening, and to refrain from intensive physical and mental activity (including searching for interesting content on the Internet) within 3 h before going to bed. Importantly, although hypnotics may alleviate some symptoms, they do not improve disturbed sleep rhythm. Therefore, hypnotics are not a recommended method for CRSWD treatment.

For Sexual Medicine Practitioners:
CRSWD is a frequent group of sleep disorders present especially in adolescents and young adults. However, patients with endogenous CRSWD are often misdiagnosed and treated for insomnia or hypersomnia with hypnotics or stimulants, which can alleviate symptoms, but it is not an effective treatment. Therefore, each patient reporting sleep-wake disorders should be interviewed about the quality of sleep and its timing during free days (e.g., weekends, holidays).

The elementary questions in the diagnostic process, which allows a physician to differentiate CRSWD from other sleep disorders are:

1. What is the typical sleep pattern of the patient on weekends, holidays, and days off work?
2. Does the patient work in shifts, or have irregular or unconventional working hours (e.g., early work shifts)?
3. Does the patient often travel with crossing of time zones?

Treatment accompanying the CSRWD sexual disharmony should be focused on the psychoeducation about the different sleep patterns and negotiating sexual contacts independently from the different circadian rhythm in spouses. The most effective methods of CRSWD treatment are melatonin administration and light therapy. Behavioral interventions modifying lifestyle are also strongly recommended.

In order to protect the couple's disharmony concerning the sexual life, partners should be educated about the differences in their sleep patterns and encouraged to negotiate and arrange the sexual contacts regardless of their sleep patterns.

20.2.4 Other Sleep Disorders

We have characterized above the most common sexual problems accompanying the most frequent sleep disorders (insomnia, OSA, CRSWD). In the present subsection, we will discuss the other less frequent sleep disorders but characterized by very specific pattern of sexual dysfunctions or problematic sexual behaviors that can be reported at the sexologist's office. Such special disorders include central disorders of hypersomnolence, sleep-related movement disorders, and parasomnias.

20.2.4.1 Central Disorders of Hypersomnolence

The ICSD-3 has included a variety of disorders under the umbrella of "central disorders of hypersomnolence," where excessive daytime sleepiness (EDS) is a cardinal and common feature to all of them. The EDS is the condition of "inability to stay awake and alert during major waking episodes of the day," and the definition was introduced to better define this state. The section includes eight disorders divided into:

- Primary conditions—caused by intrinsic anomalies of the central nervous system (narcolepsy, idiopathic hypersomnia, Kleine-Levin Syndrome).
- Secondary forms—caused by medical/psychiatric disorders [4, 7].

Multiple factors are probably involved in the pathophysiology of central disorders of hypersomnolence. Nevertheless, reduced activity in wake-promoting neurons and disinhibited sleep-inducing transmission may be associated.

One of the most characteristic primary central hypersomnias is narcolepsy: a chronic sleep disorder characterized by excessive daytime sleepiness, cataplexy, hypnagogic hallucinations, and sleep paralysis. Some symptoms of narcolepsy depend on emotional stimuli; for instance, cataplectic attacks can be triggered by emotional inputs such as laughing, a pleasant surprise, anger, and sexual activity. Cataplexy during sexual intercourse is a distinct feature of narcolepsy and is called orgasmoplexy. It involves the loss of the muscle tone during sexual activity—especially in the last phase of sexual response. However, the cataplexy-like symptoms can be rarely reported also by patients with excessive daytime sleepiness of different origin (sleep apnea, behaviorally induced insufficient sleep syndrome—BIISS) [22, 23].

Higher frequency of orgasmoplexy in hypersomnolent patients suggests that excessive daytime sleepiness and insufficient arousal may serve as a gating mechanism for the occurrence of cataplexy-like symptoms including orgasmoplexy. In patients with narcolepsy, anticataleptic drugs can be used as a treatment of orgasmoplexy. According to American Academy of Sleep Medicine and European Federation of Neurological Societies, sodium oxybate is recommended as the first-line treatment for the cataplexy based on high levels of evidence obtained from randomized controlled clinical trials. Suggested alternatives (though with limited evidentiary basis) include tricyclic antidepressants (TCAs) (particularly clomipramine), selective serotonin reuptake inhibitors (SSRIs), the serotonin norepinephrine reuptake inhibitor (SNRI) venlafaxine, and norepinephrine reuptake inhibitor reboxetine and the monoamine oxidase type B inhibitor selegiline [24]. In hypersomnolent patients, excessive daytime sleepiness should be addressed based on its cause. For example in patients with BIISS behavioral interventions, optimizing the sleep hygiene (regular bed and wake-up time, sufficient duration of the nighttime sleep) should be introduced [23].

Secondary hypersomnolence is particularly prevalent in psychiatric conditions and may interfere with achieving a proper remission of the primary disorder. Up to 75% of patients with major depressive disorder suffer from somnolence, but it is also frequently seen in bipolar, dysthymic, and seasonal affective disorders [25]. Sexual disinterests or arousal problems frequently exist in untreated depression and cover about the 50% of patients with depression of any kind [26].

For Sexual Medicine Practitioners:
The cases of central disorders of hypersomnolence are very rare but should be taken into account in any case of excessive daytime sleepiness or recurrent urges to fall asleep in the awake period, any symptoms of the sleep paralysis, or the unexpected occurrence of muscle weakness during sexual intercourse. Such patients should be referred to Sleep Medicine Departments or—if not available—to the neurologist.

On the other hand, the symptoms of excessive daytime sleepiness could be related to affective or anxiety disorders with the coexisting sexual desire decline that could lead to sexual disinterest, decrease in sexual responsiveness, and secondary SD (ED or FSIAD). The symptoms of hypersomnolence and excessive fatigue coexisting with sexual dysfunctions reported by the patient need screening for neurological or psychiatric conditions.

20.2.4.2 Sleep-Related Movement Disorders

The sleep-related movement disorders are characterized by simple often stereotyped movements occurring during sleep or urges to move before falling asleep. The most frequent are restless legs syndrome (RLS) and periodic limb movement disorder (PLMD). To diagnose RLS or PLMD, symptoms must be accompanied by sleep disturbance or other functional impairment. In case of RLS, a waking dysesthesia (burning, uncomfortable sensations in lower limbs) is the predominant symptom, although repetitive limb movement during sleep is often observed in association with RLS [7]. There are two forms of burning sensation in other parts of the body that are often considered as variants of RLS: restless genital syndrome (RGS) and burning mouth syndrome (BMS) [27, 28].

The sexual form of sleep-related movement disorders is the RGS. It refers to the uncommon experience of excessive and persistent sensations of genital and clitoral arousal, with either restless legs or symptoms of an overactive bladder, in the absence of conscious feelings of sexual desire. There is the hypothesis that RGS may be caused by a small fiber sensory neuropathy of the dorsal nerve of the clitoris (very often with preceding pelvic surgical interventions). To date, there is no consensus on the treatment for RGS [27]. The RGS should be differentiated from the persistent genital arousal disorder (PGAD) in which the patients (predominantly women) experience spontaneous genital arousal, unresolved by orgasms and triggered by sexual or nonsexual stimuli, eliciting stress and lasting hours or days, occurring constantly and with little or no relief by masturbation or sexual activity (also see Chap. 32). Some authors suggest that RGS should be diagnosed when a patient meets criteria for PGAD and also has RLS symptoms or an overactive bladder [29]. Though, there is no consensus concerning the pharmacological and nonpharmacological treatments of RGS and BMS. There is some evidence that both disorders could respond to dopaminergic agents (pramipexol and ropinirole) or pregabalin [27, 28, 30].

For Sexual Medicine Practitioners:

Both the sexual medicine and clinical sleep specialists should be aware of unusual atypical sleep-related movement disorders such as restless genital syndrome and burning mouth syndrome as they may respond to the usual treatment for RLS. A simple screening question can be asked to identify patients with RLS with high sensitivity and good reliability: "When you try to relax in the evening or sleep at night, do you ever have unpleasant, restless feelings in your legs that can be relieved by walking or movement?"

For the symptoms of RGS, the patient should be asked "Do you experience the unpleasant sensation or urges in genitals with the absence of the sexual desire that usually worsens by the end of the day?"

20.2.4.3 Parasomnias

In the clinical setting, the term parasomnia relates to undesirable events that accompany sleep. Parasomnias encompass a broad spectrum including dreaming, misperceptions, dysphoric emotions, abnormal sleep-related movements and behaviors (confusion/delirium upon waking, sleepwalking, sleep terrors), and dysregulated autonomic nervous system functioning. Parasomnias become clinical disorders as they may result in sleep fragmentation, adverse health effects, troublesome psychosocial effects, and even injuries [31]. Parasomnias can appear during entry to sleep, within sleep, or during waking. The disorders of arousal include recurrent episodes of incomplete awakening, absent or inappropriate responsiveness, limited or no associated cognition or dream report, and partial or complete amnesia for the episode (ICSD-3).

The most frequent parasomnia related to involuntary sexual functioning is abnormal sexual activity during sleep called sexsomnia, sleep sex, or somnambulistic sexual behavior. Sexsomnia has still not been reported in the literature as often as other parasomnias. Its prevalence is unknown and can be based only on the overall prevalence of parasomnias, which for adults is estimated to range between 2% and 6% [32]. Sexsomnia has also been reported accompanying the other sleep-related disorders, though it is the most common with NREM parasomnias and OSA. Inappropriate sexualized behaviors that arise from the platform of sleep encompass a broad range of behaviors from profane vocalizations, inappropriate touch/fondling, masturbation, oral sex, to sexual intercourse. These behaviors are without conscious awareness and are frequently without dream mentation [32].

Treatment of sexsomnia is parallel to the treatment of other parasomnias and consists of maximizing safety of the sleeping environment; implementing the rules of sleep hygiene, especially by avoiding sleep deprivation and maintaining a regular sleep-wake schedule with a constant waking time; identifying and excluding known precipitating factors; and limiting (preferably eliminating) the use of alcohol and recreational drugs. Pharmacological treatment with SSRIs can be offered if the above changes do not lead to significant improvement. The most effective forms of pharmacological treatment are benzodiazepine hypnotics; however this class of medication has to be used with caution due to its negative effect on cognitive functioning during the day, increased risk of falls and accidents, and a risk of addiction.

For Sexual Medicine Practitioners:
Patients with sexsomnia should undergo video-polysomnography to identify the possible coexistence of other sleep disorders and its causal relationship to sexsomnia episodes. The screening questions for patients with all forms of parasomnias (and their bed partners) should be helpful in revealing the involuntary sexual behaviors. The involuntary sexsomnia behaviors could be potentially harmful (for the partner or the other family members) or even constitute acts prosecuted by the law.

Case Report 3

The patient aged 36 years, successful businessman, married for 9 years. Father of two children—a girl 8 years old and a boy 5 years old—presented to sexologist's office due to involuntary sexual behaviors during sleep.

Since early childhood he experienced the symptoms of sleepwalking and confused awakening. As the patient was physically healthy, he has been never medically diagnosed before. Also never consulted a psychiatrist or neurologist for any neuropsychiatric symptoms.

During his marriage he presented some episodes of different sexual behaviors during sleep among them caressing, kissing, or initiating sexual activity with his wife. Confronted with these behaviors, the wife was neglecting his sexual initiation (most often by waking him) or engaging in sex with the husband. The patient did not present any aware paraphilic behaviors in the state of arousal, and he did not meet the criteria for paraphilic disorders.

The reason for the consultation concerned the situation when the couple's daughter came to the bedroom of the patient and his wife and fell asleep lying between the spouses. The patient, being asleep, started to touch the genitals of his daughter. The wife did not wake him up but recognized what had happened. The next several days led to a severe conflict between the spouses, wherein the wife accused the patient of paraphilic behaviors. During the consultation the patient was slightly depressed and reported poor sleep quality since the incident.

The patient was diagnosed with sexsomnia classified as the non-REM parasomnia. He was offered trazodone (max 75 mg in the evening) to help him with the symptoms of the transient insomnia caused by the conflict with his wife. Couple's therapy was offered for both spouses focused on the understanding the symptoms of sexsomnia, exploring the wider reasons for the present conflict and introducing the rules for all the family members to prevent future uncontrolled sexual behaviors of the patient. As the sleep history of the patient revealed that he was chronically sleep deprived due to his large work load, he was also asked to increase the length of his nocturnal bedtime to 8 h. After several weeks this change resulted in substantial decrease of sexsomnia episode frequency. The episodes were also mild in intensity and could be easily interrupted by his wife by awakening the patient.

20.2.5 Sleep and Sexual Disorders Related to Lifestyle Changes

It is important to note that both sleep and sexual disorders may result from or be influenced by the modern lifestyle in developed countries. Stress, low physical activity, irregular bedtimes, too short sleep time at workdays, and need to compensate it during the weekends lead to disturbances of homeostatic and circadian sleep regulation. It also disrupts hormonal and autonomic regulation further aggravating sleep and sexual disturbances. Therefore, next to treating sleep disorders, it's

important to educate patients about good sleeping habits. Many patients report that they follow good sleep hygiene rules, but the clinical interview clearly indicates that they only eliminate factors that disturb sleep like eating too late and use of alcohol and nicotine before bedtim and caffeine in the afternoon and in the evening. It is far more difficult for the patients to change their lifestyle to strengthen their homeostatic sleep need and their circadian sleep rhythm.

Most important sleep hygiene rules that have positive effect on sleep quality and circadian rhythm regulation are:

1. Reduce or increase time spent in bed. For most people with insomnia, the recommended time spend in bed is 6, 5, to 7 h until insomnia disappears. For most people with hypersomnia, the recommended time spend in bed is above 8 h until hypersomnia disappears.
2. Get tired physically in the late afternoon or early evening. Exercising for at least 30 min 5 times/week is necessary to increase the sleep pressure.
3. Avoid or use daytime naps. Every period of rest in lying position during the day, even a short one without falling asleep, reduces the need for night sleep. On the contrary patients with hypersomnia should be encouraged to take a nap during lunch time.
4. Avoid taking sleeping pills regularly. Hypnotics induce sleep; however, they do not strengthen natural sleep.
5. Keep regular lifestyle (meal, work, and rest times) and get up at the same time every morning. It strengthens the sleep rhythm and circadian rhythm of hormone secretion.
6. Avoid bright or blue light in the evening and during the night. Bright light and every light source with a lot of blue color, even as weak as screen of smartphone or tablet, negatively influence the biological clock.

20.3 Key Messages

- Sleep disorders may impair mood, daytime performance, sexual functioning, and relationship satisfaction, so the clinical assessment of individuals seeking help due to mental or sexual health issues should include evaluation of the quality of sleep and sleep patterns.
- Promoting sleep hygiene is an important aspect of promoting an overall healthy lifestyle that preserves sexual dysfunction and mental disorders.
- Screening for sleep disorders that may have negative influence on both above mentioned conditions include specific questions referring to:
  - Difficulties in falling or staying asleep
  - Loud snoring and abrupt awakenings related with breathing cessations
  - Daytime fatigue, drowsiness, difficulties in concentration, related mood disturbances, or cataplexia
  - Chronotype that is irregular or non-compliant with one's sexual partner
  - Atypical sleep-related movements or behaviors including sexual behaviors and their influence on the sexual response cycle and sexual relationship

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Personality Disorders

21

Goran Arbanas

21.1 Introduction

Personality disorders are usually defined as persistent, pervasive, and stable patterns of behavior and inner experiences that are significantly different from what is expected in a person's culture. They can also be defined as personality traits that are so intense and inflexible that they produce personal distress or lead to problems in interpersonal relations. Personality disorders develop before adolescence or early adulthood and are stable in time and may persist till old age. Without therapy, only rarely (e.g., in cases of lethal diseases/cancer, major chronic mental disorders/schizophrenia, traumatic experiences, or in psychotherapy) do they spontaneously fade. Due to the fact that personality disorders are persistent during the adult life of a person (so they do not have a clear-cut beginning, nor do they cease and disappear like other mental disorders), they were classified in the DSM-IV on Axis two (together with intellectual incapacities which, too, do not have a clear beginning, nor end, and are lifelong). In that respect, they are different from other mental disorders.

In the DSM-5, but contrary to ICD-10 and ICD-11, they are classified into three clusters: cluster A, weird and bizarre; cluster B, external and outgoing; and cluster C, introverted and withdrawn. Cluster A personality disorders are paranoid, schizoid, and schizotypal personality disorders, cluster B encompasses antisocial (dissocial in ICD), borderline, histrionic, and narcissistic personality disorder, and cluster C includes avoidant (anxious in ICD), dependent, and obsessive-compulsive (anankastic in ICD) personality disorder. ICD also lists passive-aggressive personality disorder.

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The prevalence of individuals with personality disorders is 2–3%. The lowest is for the dependence personality disorder (0.5%) and the highest for the narcissistic (6.2%) and obsessive-compulsive personality disorder (7.9%). As many people with symptoms of one personality disorder also have symptoms of other personality disorders, the overall prevalence of any personality disorder is around 13% [1].

Because personality disorders influence the way a person perceives not only him/herself but also the world around him/herself, it is clear that personality traits (and personality disorders as the most intense and prominent forms of personality traits) will influence the choice of a sexual partner, mating strategies and behaviors, interpersonal relationships, and relationships towards children. They will also have an influence on expression of feelings (e.g., love, jealousy, attraction) and sexual behavior (e.g., with more or less intimacy, seeing the partner as a sex object). People with certain personality disorders will have major problems leaving a relationship even if they are not satisfied with it (e.g., dependent personality disorder), while others will be prone to short, very intense relations with others (e.g., borderline personality disorders), others will have problems in showing attraction (e.g., schizoid or obsessive-compulsive personality disorder), and still others will see the relationships as more intense and intimate than they really are (e.g., histrionic personality disorder).

Although personality disorders influence the way we perceive loved ones, ourselves, our relationships, intimacy, and attachment (which are all very important for human sexuality), there is not much research (with the exception of borderline and antisocial personality disorders) of sexual problems in people with personality disorders. The strongest correlation was determined between neuroticism—which is not a specific personality disorder, but a personality trait—and sexual functioning, i.e., men with sexual dysfunctions had much higher levels of neuroticim [2]. In women, borderline personality disorder was established as a main factor related to sexual functioning, which will be described later.

Also, another relationship between personality disorders and sexuality exists, which goes in the opposite direction. There are studies showing that people who experienced sexual abuse (but also other types of) in childhood have a higher prevalence of borderline personality disorder [3, 4].

21.2 Clinical Manifestations

21.2.1 Cluster A

21.2.1.1 Paranoid Personality Disorder

People with paranoid personalities (PPD) are suspicious, but not to the intensity of a delusion. They suspect others could abuse them, harm them, or cheat on them. They are distrustful and try to find humiliating remarks or other negative comments in other people's words. If someone hurts them, they barely can forgive this and can have a grudge for a long time. They can express similar behavior in intimate

relationships, being very suspicious about the partner, suspecting the partner is cheating on them, and always test their partners if they are faithful and loyal and if they can trust them. Anger and jealousy are other frequent emotions toward their partners [5]. For these reasons some of the people with PPD never marry and those who do marry have a higher prevalence of divorce. These characteristics can also lead to violence in a relationship [6]. There is some research showing more sexual prejudices and sexual discrimination (e.g., homophobia) in people with PPD [7]. People with PPD will very rarely contact a professional in sexual health. If they do more often, it will be as partners of people with sexual (or relational) problems. The aim of the therapist in those cases should be to actively try to teach these patients how to develop empathy and emotional expression of positive affect. Also, psychotherapy addressing paranoid attitudes and unrealistic views of the world and others can be a goal that can lead (if achieved) to better relationships between these patients and their partners.

21.2.2 Schizoid Personality Disorder

People with schizoid personality disorder (SzPD) are solitary men and women who do not enjoy close contacts and intimate relations, including partnered sexual activities. They do not have close friends, nor close relationships with their family members. Their affect is flat and seems to be emotionally unengaged. Having characteristics just described it is no surprise that they often stay unmarried and prefer being single. Close intimate relationships are too much a bother for them. They are not interested in short relationships either, and they do not seek sexual relations (not even one-night stands). There is a relation between SzPD and asexuality [8]. Similar to people with PPD, those with SzPD will only rarely contact sexologists, as they are uninterested in sexual relationships. They will sometimes accompany their partners who can be dissatisfied with their affective coldness and asexuality.

21.2.2.1 Schizotypal Personality Disorder

People with a schizotypal personality (StPD) disorder are the most unusual and eccentric among the weird and bizarre personality cluster (cluster A is usually described as “weird and bizarre”). It is the only type of personality that sometimes can be recognized just by observing the person, as they may be prominent and striking in their choice of clothes and hairstyle. They also can have peculiar beliefs, unusual perceptual experiences, and prominent way of talking, sometimes ideas of reference or paranoid ideas.

Due to their noticeable behavior and appearance, sometimes they can more easily join into mating behaviors and into contact with other people (it is believed that this is mediated by artistic creativity) [9]. But, there is also another subgroup of these people who are socially withdrawn and have a fear toward others. There are no data in the literature on specific aspects of sexuality issues in StPD.

21.2.3 Cluster B

21.2.3.1 Antisocial (Dissocial) Personality Disorder

The core characteristics of people with antisocial personality disorders (AnPD) are abuse of the rights and feelings of others, use of others for material gains or personal pleasure, low level of tolerance of frustrations, impulsivity, irresponsible behavior, lack of empathy for others, lack of remorse, and guilty feelings after hurting others. For their behavior they find rationalizations. The prevalence of antisocial personality disorder is around 2%, and it is six times more prevalent in men than in women. Due to their characteristics (abuse of others and lack of remorse and guilt or shame), they are prone to criminal activities, and the prevalence of this personality disorder in prisons and forensic settings is up to 65–70% [10].

As people with this disorder have the feeling that their rights are more important than the rights of others, and due to the fact that they abuse and hurt others if this leads to some gain for themselves, it is no surprise that their interpersonal relationships may be full of abuse and neglect of others. Men with antisocial personality disorder are prone to sexual abuse and domestic violence, and when they commit these crimes, they do not feel any remorse and usually find explanations and reasons for committing these acts. In antisocial sex offenders, there are higher rates of other types of crimes committed together with the sexual abuse itself (e.g., physical violence, homicide, threats, etc.) [11].

In non-abusive relationships, people with AnPD will be prone to shorter relations as they usually do not develop deep feelings of love, intimacy, and togetherness. People with AnPD (the same as those with narcissistic personality disorder) engage more often in casual sex and one-night stands. The partners of these men usually have the feeling of being exploited and used, and not loved. It seems that these men go into intimate relations in order to get sex, and not romantic connectedness.

Taking into account all these characteristics, it is no surprise that men with AnPD are more often single. Interestingly, people with AnPD who were married improved more during the years, compared to those who were single, suggesting that they can learn empathy and respect for other people during longer periods of time. Marriage also deterred them from antisocial acts outside the relationship (e.g., crimes and incarceration) [10].

The most prevalent reason for contact with a sexologist in cases of people with AnPD is due to their propensity toward sexual offending and sexually abusive behavior. Therefore, in each of the patients with AnPD, it is important to make a sexual offense risk assessment. During sexual therapy, one of the important aspects should be establishing secure conditions for the partners (and protecting the victimized partner, if necessary). One of the therapeutic goals can also be anger management, dealing with aggressiveness, and empathy training.

21.2.3.2 Borderline Personality Disorder

The basic characteristic of borderline personality disorder (BPD) is constant instability, i.e., the lack of persistence and stability in the perception of oneself and the surrounding world. People with BPD have a permanent pattern of unstable and

intense interpersonal relationships, impulsivity, affective instability, the feeling of void and fear of abandonment, much difficulties in controlling one's anger and rage, and suicidal thoughts and acts.

Regarding interpersonal relationships the person with BPD will typically have intense feelings toward a person, but these feelings are usually short-lived. The person describes the greatest love ever, and only a few weeks later, the person realizes that it was all just an illusion and that the other person is not such a nice, wonderful, and all loving person. The relationships are characterized by many fights (even physical) with partners, angry, and emotional breakups (but 2 days later, the person can realize that she/he cannot live without the other person and goes back and tries to make up with a partner). Due to this idealization followed by disillusionment, the person with BPD may have many short-lived and dissatisfying relationships and cannot stay in a long relationship (the person lacks the ability to form stable and constant dyadic relations and cannot maintain a stable image of a trustworthy partner). For the same reason, the rates of divorce among people with BPD are higher than in the general population, and they marry at a younger age; this is more profound in men than in women with BPD. In the same line, there is a higher prevalence of unwanted pregnancies, as the person changes his/her future plans in terms of days or weeks, has short-lived relationships, multiple partners, does not care for the contraception, and more risk behavior.

Due to impulsivity, proneness to idealizing people who they do not know for long, they may engage in high-risk sexual behavior and have higher rates of sexually transmitted infections [12]. They also have higher rates of commercial sex work, larger number of lifetime sex partners, and higher rates of suicide (which is especially high in those people with BPD who were sexually abused in childhood).

BPD is the disorder with the most evidence of sexual abuse in childhood [13]. Also, many men and women with BPD have sexual dysfunctions (e.g., arousal and orgasm problems). It is possible that this is due to the higher frequency of sexual abuse (both in childhood and adulthood) of these people, since sexual abuse is a risk factor for sexual dysfunctions [14]. Other factors that can lead to higher prevalence of sexual dysfunctions are depressive episodes of people with BPD and medication (e.g., antidepressants, anxiolytics).

Also, patients with BPD more often have a bisexual and homosexual orientation and more often report same-sex relationships. As their inner sense of themselves (i.e., self-image) is unstable and they change their interests, partners, hobbies, and jobs (more often than people with other personality characteristics), the same can happen with their self-perceived sex orientation, so they more often change their self-reported sexual orientation than any other personality type [15].

Those who were treated for their BPD show not only a decrease in their BPD symptoms but also a change in sexual behaviors such as intimate violence, duration of marriage, and stability of relations with spouses and children.

Due to their core characteristics (i.e., unstability), these patients may contact a sexologist with symptoms of gender dysphoria (that can change over time). For this reason, it is important that in such cases the healthcare professional assesses the stability of gender dysphoria symptoms and the influence of the personality traits on

the expression of gender identity. Also, the therapist should assess how realistic the expectations of the patient are from the transition, considering the high possibility that a person with BPD will change his/her attitude from one of idealization to one of dissatisfaction and great disappointment but also because changes in other important areas of life are frequent in these people.

In all the cases of BPD (due to the highest prevalence of history of sexual abuse), the treating professional should inquire into history of abuse but also (due to the impulsivity) sexual risk assessment.

21.2.3.3 Histrionic Personality Disorder

A person with histrionic personality (HPD) disorder is open, talkative, and interesting (at least at first). These people experience relationships to be much more intensive and intimate than other people perceive them. They feel at ease when they are in the center of the attention. They use both their clothing, physical appearance, and way of talking to keep attention to themselves. They are prone to sexual flirting and provocative behavior. Their feelings are intense but short-lived.

Due to these characteristics, they easily contact other people and are more quickly ready for sexual relationships. Very often they show sexualized behavior, but these sexual activities are their way how to stay in touch with other people. They offer sexual behavior to stay in a relationship, but still cannot reach true intimacy.

Similarly, to people with BPD, sexual behavior is the symptom of HPD: flirting behavior, sexual immaturity, sexual provocativeness, urge for idealized love, and jealousy. Their eroticism functions as control of objects, and therefore do not lead to satisfying sexual relationships. For that reason, it is not surprising that people with HPD have higher rates of sexual dysfunctions, especially orgasm problems in women [16].

Some studies show that in women, histrionic traits are positively related to vaginal sexual activities (i.e., they have coitus more often) but also have more sexual fantasies, perceiving themselves with more sexual self-respect and self-confidence. They are also more often engaged in extramarital activities [16, 17]. Histrionic traits are connected to more frequent sexting [18]. On the other hand, the same women are less sexually assertive and have lower general self-respect and lower sexual desire and are more often dissatisfied with their marriage and divorce more often [6]. Interestingly, people with HPD have more sexually provocative behaviors and more sexual activities but at the same time also more sexual dysfunctions.

Men with HPD also have higher frequency of sexual activities, and female partners of men with HPD have lower prevalence of anorgasmia. It is believed that this is due to the fact that for men with HPD, it is very important to make their partners satisfied, so they take extra care to satisfy them during sexual activities [19].

Histrionic patients can be seductive and flirting with the therapists, as they are with other people in their lives. It is important that the therapist keeps a professional stance and does not cross the line. Still, the therapist should keep in mind that this sexualized behavior is usually the only way these people know how to engage in contact with other people, and it does not have the same meaning as is the case with people of different personalities.

21.2.3.4 Narcissistic Personality Disorder

Narcissistic personality disorder (NPD) is characterized with a grandiose sense of one's importance, and therefore these people consider themselves to be unique and more important than others and that she/he should communicate and be with similarly important others. They seek adoration and believe they have the right to be treated in a special way by others. For these reasons they are usually exploitative in relationships, and they do not have empathy for others and are arrogant.

Such characteristics will be evident in their romantic relationships, and they believe they are entitled to have a special relationship with the greatest love ever. They will expect their partners to adore them and to fulfill their wishes, often with no empathy for the partners. This sometimes leads to more violence against partners and decreases the marital quality in a relationship. Some narcissistic people will not engage in long-term relationships but will be more interested in one-night stands and short-term sexual relationships, and this is especially true for men with NPD and those who also have antisocial traits [20].

Due to their belief that they are entitled to special treatment (even when they are in an intimate relationship), they engage more often in marital infidelity, compared to people without NPD [21]. Nevertheless, there are no specific research on the sexual problems in people with NPD.

21.2.4 Cluster C

21.2.4.1 Avoidant (Anxious) Personality Disorder

People with avoidant (anxious) personality disorder (AvPD) consider themselves inadequate, awkward, unattractive, inferior, and unlovable—they are the opposite in their self-perception to people with NPD. Therefore, they avoid activities with much interpersonal contact, as they believe they will be criticized and rejected. They also avoid intimate relations believing they will be embarrassed due to their inadequacy. For the same reason, they are extremely inhibited in majority of interpersonal situations.

Feeling they are inadequate and inferior, they rarely leave their partners or divorce (the lowest number of divorces among all the PD is in this group) [4]. Even when they feel stressed in the relationship and are significantly dissatisfied, they will not leave the relationship. They have a greater probability of mating with other people with AvPD [22].

Men with AvPD have slightly higher prevalence of sexual dysfunctions, especially erectile dysfunction. This can easily be explained by performance anxiety, as men with AvPD have high levels of anxiety. This is the PD with the least studies into sexual activities and disorders.

In dealing with AvPD patients, communication skills and relaxation techniques can be an important part of their therapy, as these can decrease the anxiety when they are in social situations which can lead to better mating skills.

21.2.4.2 Dependent Personality Disorder

A person with dependent personality disorder (DPD) has great difficulties in reaching any decisions on her/his own and needs another (strong) person to be with. Such a person seeks advice and wants other people to take the responsibility for his/her decisions. Also, people with DPD cannot show their disagreement with other people as they fear rejection. They would go into very annoying and uncomfortable tasks just to get the care and support from others. They feel very distressed when alone, without others, and think low of themselves.

Due to these characteristics, in interpersonal relationships, they are willing to suffer mistreatment just to stay in a relationship, and when the relationship finishes, they horridly try to find a new person to cling to. During the relationship they are usually very apprehensive of rejection and would do anything just to stay together.

This need for relatedness with another strong individual can lead to situations in which a person with DPD is willing to suffer abuse and domestic violence, just not to be abandoned [23]. But, some men with dependent PD are perpetrators of domestic violence, probably because they use violence to avoid abandonment [24].

The clinician should ask about possible sexual abuse in a relationship, as it is not highly probable that they will start talking on their own about the abusive behavior of their partners.

21.2.4.3 Obsessive-Compulsive Personality Disorder

People with obsessive-compulsive personality disorders (OCPD) are characterized by order, logic, perfectionism, discipline, and lack of emotional expression. They are interested in rules, lists, order, and organization to the point that these formal things are more important than the content itself. They are perfectionists who cannot finish tasks, as they are never good enough, and they are dedicated to work and productivity and are reluctant to designate others to do tasks as others cannot make them properly. They score very high on traits of morality and ethics. They are rigid and stubborn.

In interpersonal relationships they are cold and aloof and do not show affect and love. They seem to lack empathy and emotional warmth. Logic is always more important than showing affect. Due to all these reasons, it is not surprising that people with OCPD less often engage in sexual activities [16]. Sexuality is inhibited in these people as they use many neurotic defense mechanisms against emotions (i.e., reactive formation, isolation of affect, intellectualization) [25]. Men (more often than women) with OCPD claim to suffer marital dissatisfaction, possibly due to what they experience as too many emotions coming from their partners overwhelming them [23].

21.3 Clinical Management

Personality characteristics influence the perception of the person and her/himself, the perception of other people, and the world. It also influences affective reactions and behavior. For these reasons, personality characteristics very much influence

mating strategies and behaviors but also intimate relationships and communication styles. All of this is important for dyadic relationships.

Personality is stable over time and hard to change. Therefore it is important when treating a couple (or an individual) where a personality disorder is an important factor for the disturbed relationships, to educate both partners about their personalities and what is expected in people with these characteristics. For example, if one of the partners has OCPD, it is important to explain to both partners that usually people with this PD are not emotional and do not show love and affection publicly (or even privately); they can easily be overwhelmed with emotions and defend themselves (unconsciously) by isolating emotions and becoming logical and practical. It is completely different with people with borderline or histrionic personalities. With such explanations the therapist can help both partners to change (or accommodate) their expectations from themselves and from their partners. Also, we will help them to understand the other person and to understand that the lack of emotions that are on display actually do not mean that these people do not have emotions toward them or to understand that people with borderline personality use strong emotions because they feel empty deep down in themselves and try to provoke strong emotions in others and that their emotions can change in a short period of time. With such an understanding (in both the person with BPD her/himself and her or his partner), strains in a relationship can be better understood.

When people with PD have sexual dysfunctions, they are treated the same way as in people with no PD (there are no specific techniques described for specific PDs) but bear in mind that people with PD will perceive the therapist, the procedures offered, and the whole therapeutic process through the lens of their PD. The therapist should keep in mind that a person with a PD will understand the procedures differently and should be aware of that and from time to time check in with the patient, staying calm and empathic for such differences in perception of the relationship. For this reason, sexual therapy will be faced with more problems and obstacles than in patients who do not have a PD. In addition to sexual therapy, psychotherapy for the PD can be recommended as this can increase the positive outcome of sexual therapy.

Case Report 1

Mary and John are a young couple in their mid-20s. They have been together for 9 months now, and Mary was the one who approached a sexual therapist. Mary has been seeing a psychiatrist for several years now because of her borderline personality disorder. She has changed three psychiatrists so far, as she did not like their way of working, the way they were addressing her, and the comments they gave.

John is a person with no personality disorder but with avoidant personality traits. Mary is the one who is very dramatic, has emotional outbursts, and yells at John when they have a quarrel. He is usually calm, just retreats when the situation is very emotional and comes back the next day.

At the first meeting with a sexual therapist, Mary said that John is talking very little and that this is not healthy, and he should learn how to talk more and be more expressive. She also gave an example of their problems. The other day she had a terrible day, she was distressed, and she told him to leave her alone and not to ask anything. He complied and left their apartment, and he returned the next day. Then she yelled at him, explaining that he is such a bad guy, and he did not recognize that she needed him. She wanted him to leave just for 2 h, not for the night.

At first, and for the following several sessions, the therapist tried to explain to both of them (but especially to Mary) that people have different personality traits, and none of the traits is better or healthier; we are just different—some people are more emotionally expressive, some are more introverted. Expressing emotions out loud is not the best option for everybody. The therapist also asked the partners to try to be more supportive of the other partner's style of expressing emotions and to try not to change the other one but themselves. So, it was suggested to Mary not to ask John to be more expressive but that she needs to try being less expressive.

Also in a calm and empathic way, it was explained to her that we cannot know what the other person is thinking and that if she told John to leave her alone, it should be her who should tell him when to come back, not him trying to guess when is the best way. He was applauded for being supportive and letting her be alone when needed.

This kind of therapy with support to both partners with mild and empathic confrontations was continued. After 2 years of therapy, they both said that they still have misunderstandings but that they now can see how their personalities influence the way they perceive the situation and that without therapy they would have probably separated many months ago. Also, both of them were more able to attend to the other partner's sexual needs and the appropriate stimulation. Mary was experiencing orgasm more often, compared to before therapy, and they were both much more satisfied with their sexual lives.

21.4 Key Messages

- In work with persons with personality disorders, it is important to assess the personality type or the personality disorder of the patients and partners, as these can influence their communication skills, attitudes toward therapy, adherence to the therapy plan, expectations from the therapist, and how they experience and live their sexual life.
- In the therapy it is important to educate patients about their personality traits.
- It is important to change your communication styles to accommodate the patient and his/her partner and to teach both partners how to empathize with each other.
- If one of the partners has antisocial personality disorder, it is central to be vigilant to abuse.

- People with borderline personality disorder have intense emotional expressions and change their attitudes and emotions often; therefore, be aware of your emotional reactions and stay calm.
- With certain personality disorders (especially borderline), it is important to ask for childhood sexual abuse.

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Intellectual Disabilities

22

Izabela Fornalik

22.1 Introduction

People with intellectual disabilities are an inhomogeneous group. The peculiar aspect that they have in common is the occurrence of deficiencies in their intellectual functioning (reasoning, problem-solving, abstract thinking, learning) as well as deficiencies in accommodation, which cause failures in the realization of developmental, social, and cultural standards. They inhibit the proper functioning in different areas of life, namely, communication, autonomy, and social engagement. Such deficiencies occur in the developmental period.

Intellectual disability (intellectual developmental disorder) is a disorder with onset during the developmental period that includes both intellectual and adaptive functioning deficits in conceptual, social, and practical domains. The following three criteria must be met:

(a) Deficits in intellectual functions, such as reasoning, problem-solving, planning, abstract thinking, judgment, academic learning, and learning from experience, confirmed by both clinical assessment and individualized, standardized intelligence testing.
(b) Deficits in adaptive functioning that result in failure to meet developmental and sociocultural standards for personal independence and social responsibility. Without ongoing support, the adaptive deficits limit functioning in one or more activities or daily life, such us communication, social participation, and independent living, across multiple environments, such as home, school, work, and community.
(c) Onset of intellectual and adaptive deficits during the developmental period [1].

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The level of functioning of people with intellectual disabilities varies. Adults with a mild disability fulfill their family and occupational roles but need support in decision-making, achieving occupational qualifications, childcare, legal matters, and solving life problems. Adults with moderate intellectual disability can take care of their own basic needs such as food, hygiene, and getting dressed but need support in household duties, finding and maintaining a job which requires only limited cognitive skills, and all decision-making. Some men and women with a moderate disability create intimate relationships but still need permanent help in performing marital and parental roles [2]. In the case of people with severe disability, permanent support is required in fulfilling all their needs and everyday activities, due to difficulties in communication and the inability to make responsible decisions concerning themselves and others. These people can perform really well in occupational therapy classes and can express their emotional engagement in a simple way but hardly ever create intimate relationships, which are more immature in comparison with the ones of people without intellectual disability. However, people with profound disability depend on others in all aspects of everyday life. They may have difficulty expressing their sexuality in a socially acceptable way. Most of them signal their needs and emotions through nonverbal communication.

It is important to remember that people with an intellectual disability form an especially vulnerable group regarding the risk of sexual abuse and maltreatment. It is stated in international literature that people with intellectual disabilities become victims of sexual abuse three to five times more often than others in the community [3]. Other studies suggest that 49% of people with intellectual disabilities experience ten or more sexually abusive incidents [4]. Most of the abusers are known and trusted by the victim who has intellectual disabilities, like family members or staff from the caresystem.

Intellectual disability (profound in particular) is often accompanied with different coupled diseases, problems within the sensory-motor system such as cerebral palsy, and myelomeningocele [5], which additionally affects the level of life independence of a given person and their possibility to fulfill their needs, including sexual and emotional ones.

The sexuality of people with intellectual disability, as in the case of nondisabled people, is an issue involving many different questions. Due to the narrow focus of this chapter and taking into consideration the target group of specialists of this publication, I have focused merely on the discussion of "problematic sexual behavior" in people with moderate, severe, and profound intellectual disabilities. It has been observed as a challenge both for their caregivers, parents, and medical personnel, as well as specialists providing help within sexuality issues (doctors, sexual educators, and therapists). Due to the less stigmatizing connotation, the name "sexualized challenging behavior" was adopted in this chapter.

22.1.1 Communication with Patients with Significant and Profound Intellectual Disability

Good communication with the patient seems to be crucial when providing support. The more profound the disability is, the more difficult it is to convey messages but also to express their needs, thoughts, or beliefs. In a vast number of patients, verbal communication is limited, especially if the decreased intellectual ability is coupled with motor disability, e.g., in cerebral palsy. Limitations or lack of speech do not exclude communication. Many people with intellectual disability use AAC, i.e., "augmentative and alternative communication." These are all ways which substitute or support natural speech or enable the person to convey and receive information, for better communication and social life participation. These include different systems of gestures, graphic symbols, pictures, e.g., Picture Communication Symbols—PCS, Picture Pictogram Ideogram Communication—PIC, Blissymbols, Makaton, boards with letters and symbols, communication books, equipment, and computer software. The communication systems available include graphic symbols which refer to human sexuality. Particularly rich in symbols concerning corporality and sexuality is the free and open-access symbol database Sclera which is available at http://www.sclera.be.

What are the rules worth following while communicating with a patient with a more profound intellectual disability? The most important thing is to make a primary effort to communicate with the patients, not only their parents, caregivers, or assistants. At the beginning, it is worth gaining information about whether the patient uses any methods to support communication and if this system contains symbols appropriate for the topic of sexuality. For full understanding one needs to use simple and short sentences, devoid of medical jargon. However, one must avoid addressing the patient in a childish way. If the patient has trouble understanding the content, it might be helpful to use various visual strategies: simple drawings, photos, picture instructions, short animations, or special objects such as anatomical dolls, models of sexual organs, or contraceptives. A conversation with a patient who has communication problems requires more time and patience; thus you need to devote more time. More information on this issue at http://www.communication-matters.org.uk, https://www.isaac-online.org.

22.1.2 Cooperation with the Patient's Parents and Carers: Dangerous Traps

A vast majority of people with an intellectual disability do not present to a psychiatrist or sexologist of their own choosing, but rather as a result of parents, other legal caregivers, or the personnel of the institution they stay at. Due to this fact, the doctor must sometimes face a difficult question: "Whose perspective should I take while

giving medical advice or choosing an intervention?". It occurs frequently that the parents' or caregivers' expectations are contrary to the needs and expectations of the people with an intellectual disability. Despite increasing acceptance of the sexuality of people with an intellectual disability by their parents and environment [6], still some parents or personnel try to force the doctor to apply pharmacological interventions in order to weaken their children's or clients' sexual drive or to eliminate sexual behavior despite no medical justification for such actions.

It seems obvious that the perspective of a patient with an intellectual disability should always be a priority and the doctor's attitude must respect their sexual rights and be free of any bias. All the same, most patients, especially moderately, significantly, and profoundly disabled ones, are not self-reliant and depend on their parents or caregivers. And it is them who must sometimes take the consequences of actions performed by their (sometimes) adult children. The following are examples of situations which may cause dilemma and cause the parents' or caregivers' objections: the patients' desire to use paid sexual services, their need for sexual initiation, giving up contraception, and expressing their desire of parenthood, using erotic or pornographic materials, masturbation practice, same-sex relationships, and many others.

At the beginning of our cooperation with the patient's parents, we must bear in mind that some of them sometimes have no basic knowledge about human sexuality, and they may treat their son's or daughter's sexual manifestations as disorders. Parents find it difficult to accept the fact that their child is maturing and becoming an adult and presents adult needs. Some parents struggle with moral or religious dilemmas, particularly in cases of masturbation, extramarital sex, homosexuality, or contraception for their disabled child. Supporting their children's sexual needs, especially the ones with more profound intellectual disability, is commonly connected with breaching their "family taboo." The necessity of the parent's "participation" in the sexual activity of their son or daughter can be very difficult, e.g., explaining how to masturbate correctly or helping organize their sexual initiation [7]. Moreover, many parents experience a strong fear that their maturing or adult child may discover the pleasure arising from sexual satisfaction, and sexual behavior may dominate their life.

Therefore, an important element of support for the parents of the patient with intellectual disability is psychoeducation concerning human sexuality, normalization of the sexual manifestations of disabled people in the eyes of their parents, providing emotional support, and expressing understanding for their doubts.

22.2 Clinical Manifestations and Management

22.2.1 Sexually Challenging Behavior of People with Intellectual Disability

One of the reasons why the caregivers and parents of people with moderate and severe intellectual disability seek psychiatric or sexological help is "sexualized challenging behavior" [8]. According to Emerson (page 109) challenging behavior

can be defined as "behavior of such intensity, frequency, or duration that the physical safety of the person or others is placed in serious jeopardy, or behavior which is likely to seriously limit or deny access to the use of ordinary community facilities" [9]. This behavior can be extremely difficult to deal with, and its consequences for the person involved may be stigmatizing and negative. It requires more engagement in understanding its origin and function on behalf of the environment, namely, parents and caregivers.

The following division of "sexualized challenging behavior" was applied, on the basis of surveys [8] among people with intellectual disabilities:

- Self-directed behavior: masturbation/masturbation attempts; non-directed exposure/stripping; accessing adult images in the Internet; fetishism; and unclear content behavior
- Other directed behavior: inappropriate touch to the staff or clients; invasion of personal space; inappropriate communication; exposure; and voyeurism

According to the author's research and clinical experience, the most common behavior is masturbation and invasion of intimate space. Therefore, below the attention has been focused on interventions in case of such behavior.

22.2.1.1 Masturbation

Numerous studies show that the masturbation rate in people with intellectual disabilities varies according to age, sex, degree of disability, and life conditions [10–12]. In teenagers and adults, it is comparable to nondisabled people and amounts to 76% [11]. In most cases of intellectually disabled people, masturbation serves sexual release, does not breach social rules, is performed in privacy, and does not require any specialist intervention [13]. However, in some people masturbation seems problematic behavior due to its persistence, openness, and undesirable effects [14]. Sometimes, this can also include unusual methods of realization (using objects, specific stimulation, ritualized masturbation).

There are many factors which promote problematic masturbatory behavior. These are cognitive deficiencies inhibiting understanding of sexual behavior standards (social, legal) and their internalization; difficulties in differentiation between public and private matters (places, activities, body parts); lack of knowledge of correct ways of masturbation; ineffective masturbation (strong feeling of guilt, influence of medicines, inappropriate techniques); problems with impulse control; problems with postponing the sexual release; health and hygiene factors; lack of privacy; lack of sexual education; neglect in satisfying needs; and faulty socialization of masturbation. Such faulty socialization occurs when the people around avoid any reaction to masturbation or apply too strict interventions. Repressive actions taken against masturbation are usually ineffective. Their unintentional result may be the increase and pathologizing of forms and the occurrence of other emotional or behavioral problems. It is particularly likely in cases of fixed masturbation [15, 16].

Therefore, when the masturbation is a problematic behavior, does it require intervention? During evaluation the following questions should be taken into account [7, 15]:

- Is it manifested in a public place or in the presence of other people?
- Does it cause injuries?
- Is it performed so often that it upsets the person's everyday functioning (it is a dominant activity and inhibits realization of other life tasks appropriate for the given stage of life)?
- Is it compulsive?
- Does it cause harm to other people (e.g., hygienic problems, stealing clothes of other dwellers, very loud)?
- Does it make the person suffer (e.g., they cannot climax, they feel extremely guilty)?

Good Intervention in Case of Problematic Masturbatory Behavior

In order to apply correct and suitable intervention for a particular person, it is necessary to look at a broader context of masturbatory behavior. It is important to gather information about the behavior of a person, from the person themselves, and to answer the question of what the function of masturbation in this particular person may be.

Questions concerning behavior What is the form of auto-stimulation? Where does it take place (in private, public, **a** preferred place)? Is the form of masturbation different according to place and what factors may be the cause? When does it take place (part of a day, schedule)? What circumstances did the first behavior take place in (age, social context)? When does the behavior not occur (type of activity, who's present)? How did the dynamics of behavior change (frequency, increase/decrease periods of activity, periodic masturbation patterns)? Does the person voluntarily discontinue the behavior and in what circumstances? How can this behavior be predicted? What is the proportion of masturbation to other forms of activity? Is masturbation an element of a broader range of other difficult behavior, e.g., self-injury? [7, 17].

Information concerning the person Age and stage of sexual development, level of intellectual ability, health condition and medicines taken, ways of communication, extent of understanding of the behavior, extent of self-dependence, and knowledge about sexuality.

Reactions of the environment What were the reactions of the people around? What was the aim of the reactions? Were the reactions effective? How could the reactions of the people around increase the behavior of the person in its present shape?

Functions of Masturbation in People with Intellectual Disabilities and Suggested Interventions

The basic function of masturbation is the *sexual function*. Therefore, it is a way of deriving sexual pleasure and releases built-up sexual tension. However, in people with intellectual disabilities, it often performs several *non-sexual functions*. Due to this fact, many interventions aiming merely at the masturbatory behavior itself (attempts to socialize the behavior, decrease their frequency through behavioral

techniques) do not prove effective. Then, one must focus on the recognition of the cause of such behavior and take action aiming at those causes. Table 22.1 presents a description of selected non-sexual reasons for masturbation and exemplary interventions. In case of a particular person with a more profound intellectual disability, masturbation may have both sexual function and involve some other non-sexual causes.

Table 22.1 Non-sexual causes of masturbation and suggested interventions [18]

Non-sexual causes for masturbation	Suggestions for diagnostic reactions and interventions
Masturbation as a symptom of health problems Infections (mycotic, viral, bacterial, or parasitic) and infections of sex organs or allergies in the genital area. Hormonal problems, e.g., abnormal level of sex steroids (may increase the sexual urge)	Medical history: history of infections or inflammations of sex organs, the condition of sex organs (phimosis, allergies, flare, etc.), urology, hormone or other relevant test results, and medicines taken Observation of reactions: pain reactions, irritability, urge to touch, scratch, press, or stimulate in other ways the sex organs, e.g., despite enhancement of alternative behavior Treatment should aim at removing the health problem If masturbation prevails despite eliminating the cause, it may be of habitual nature. Then it is necessary to use behavioral techniques
Masturbation as an effect of discomfort caused by bad hygiene or inappropriate outfit Hygienic neglect of the sex organs may cause inflammatory conditions, leading to itching and touching, rubbing, or scratching the sex organs Wearing too tight underwear or trousers Diaper wearing	Self-reliance training concerning intimate hygiene Appropriate clothing In case of people with profound intellectual disability who wear diapers—suggesting not wearing diapers as often as possible
Masturbation as a symptom of sensory disorders Sensory processing disorder occurs in the central nervous system led by our brain. If the processing is incorrect, the brain cannot organize sensory information There is a connection between masturbation and sensory modulation within the sense of touch. A person may seek stronger sensory sensations within the whole body, including very sensitive to touch sex organs (pressing, tapping, jerking, intense stimulation). A hyperresponsive person, who avoids tactile stimuli, may use such techniques of masturbation which do not involve hand touch (pressing the sex organs with a pillow, rubbing) Masturbation may occur as an effect of other excessive sensory stimuli (auricular, olfactory, visual)	Diagnosis of sensory disorders. Medical history should include questions concerning the sense of touch (e.g., searching for strong stimuli on the body, touch avoidance, reaction to touch, refusing to touch their own sex organs during hygienic activities) and other senses (e.g., masturbation with a lot of sound or smell stimuli) Sensory disorders therapy Adding selected sensory exercises in everyday working plan Classes such as hydrotherapy, hippotherapy, choreotherapy, massage, and other methods of exercising the body Giving up diapers (staying dressed) during sensory and rehabilitation exercises, which enables extra stimulation of the whole body Limiting excessive stimuli

(continued)

Table 22.1 (continued)

Non-sexual causes for masturbation	Suggestions for diagnostic reactions and interventions
Masturbation as a way of dealing with emotional tension Masturbation in situations when the person experiences anxiety, stress, and discomfort caused by a task situation, frustration due to lack of communication with other people. Some people react to stressful situations and anxiety with sexual excitement	The diagnosis should include detailed analysis of the situation in which masturbation occurs Limiting situations which generate anxiety Regular emotional tension reduction exercises (e.g., simple relaxation trainings, breathing exercises, mindfulness techniques) Provide them with techniques in emotional tension situations instead of masturbation (e. g., pressing a ball in hands, deep breathing, focus distraction)
Masturbation as a way to fight boredom and lack of activity In cases of people who function poorly, masturbation may be one of the few activities which they can perform on their own. It is easily accessible and pleasant, so it provides positive feedback. It may function as a way of reactivity when the person is idle, bored, does not understand the task, cannot take part in a group class, and is not physically active	The diagnosis should include a detailed analysis of the person's day plan and the situation in which masturbation occurs Provide activity adjusted to the person's abilities, which will enhance success and competence Increase physical and cognitive activity
Masturbation as a way of drawing other people's attention It is a learned strategy which may be implemented by a person who wants to maintain the attention of their environment. Punishment is also a form of attention, so it may enhance masturbation behavior	Analyze the situations when masturbation occurred. Answer the questions: does the person prefer masturbation in isolation or with other people? Does the person give up masturbating when ushered into another room or is given a choice—stay and not touch themselves or leave and touch? Does the person stop masturbating when given other people's attention? Behavioral techniques: enhance alternative behavior, give attention in other situations, calm down masturbation
Masturbation as a reaction to trauma or other difficult experiences, i.e., sexual abuse	The diagnosis should look for difficult or traumatic experiences Psychotherapy

Working with a patient with problematic masturbatory behavior must sometimes include interventions aiming at their non-sexual needs but also educational action and training which should teach correct masturbation and its socialization. These should include the following issues:

Arousal Teach the difference between sexual arousal and other conditions (sometimes felt in a similar way), e.g., nervousness and excitement. Explain what the person should not do when excited (hug other people, brush against them, touch oneself in public, etc.) and what behavior is acceptable (masturbation according to the instructions or drawing attention from the cause of sexual arousal). Using visual aids presenting symptoms of sexual arousal (drawings, models) is very helpful.

Anticipatory signals Recognize signals which suggest that the person may start masturbatory activity. It is very important in a situation when the person presents poor intellectual performance and finds it difficult to postpone their sexual release, and there is a risk that this person may start masturbating in inappropriate circumstances. These signals include the person lies down on a mattress in a particular position, arranges the pillows in a specific way, or picks up a mascot which is used for stimulation. Intervention at this stage is more effective than when the behavior occurs.

Place It is essential to clearly determine the places where masturbation is acceptable. You may use visual aids, i.e., photos, pictograms of the places, cartoon strips illustrating the course of events [19], marking private space in the house/institution (bedroom, own bed, bathroom), and playing scenes with dolls. It is important that the person has their own private space, so it is unacceptable that the parent sleeps with their teenage or adult child in one bed. Equally important are messages such as "Not here. You may touch your penis in your own bedroom."

Time It may prove helpful to determine "private activities" in the day plan (the person may, but does not have to, choose masturbation), and sometimes it is necessary to determine time for masturbation (using a timer if the person tends to masturbate for a long time). Avoid messages such as "you mustn't" and replace them with "not now, you may touch yourself... (specify time)."

Manner Many people with intellectual disabilities masturbate in a harmful or ineffective way, e.g., they rub their body against the mattress, press their genitals towards the floor, insert some objects into the vagina or urethra, hit the penis with the hands, or press the thighs together. However, teaching correct techniques of masturbation, especially with reference to people with poor intellectual performance, evokes controversy due to the kind of techniques used. The techniques should be appropriate for the perceptive abilities of the patients. Verbal instructions may prove unclear; thus the following aids are recommended: "chain of behavior," visualized by graphic symbols or drawings, cartoon or photo instruction, models of the penis/vagina, and instruction films, e.g., "Hand made love: A Guide for Teaching about Male Masturbation Through Understanding and Video" [7, 20] and "Finger Tips: A Guide to Teaching about Female Masturbation through Understanding and Video" [21]. In literature there is also a description of the "hand-over-hand" technique [22] which consists of manual prompt of the parent on the way of masturbation, e.g., holding their son's/daughter's hand, the parent demonstrates on the daughter's/son's body a correct way of stimulating the sexual organs. The parent should withdraw their help as soon as possible. All methods involving touching the patient should be performed with a great deal of discretion, so that not to breach the patient's intimacy.

The starting point for all actions aimed at the correction of inappropriate masturbatory behavior (breaching health or social norms) should be the acceptance of masturbation as a behavior which is used for sexual release and adopting a rule that it should be the least restrictive and consistent in different environments. To make this happen, it is necessary to educate parents and specialists in different institutions which host persons with intellectual disabilities.

The IMPROVE Model

Walsh suggested a model procedure in case of incorrect masturbation "The IMPROVE model," including the following elements: **I**nvestigation (examine the situation to determine the causes of the behavior), **M**eet the need (assist the person to meet identified needs in more socially acceptable and positive way), **P**lanned education (a structured program of education which takes into account the individual's learning needs), **R**edirection (what is said and done by direct caregivers when inappropriate behavior is observed), **O**ptimism (belief that the individual can learn and change their behavior), **V**ersatility (willingness to try a variety of non-restrictive interventions), **E**valuation (structured monitoring of baseline behavior and any changes which occur). The authors of this model stress that all reactions should be consistent and adequate. Moreover, they should be accompanied by respect presented in behavior and verbal messages, and the person should be provided with safety and comfort [15].

Case Report 1

A man with severe intellectual disability masturbates in public places and exposes himself.

The man is 18 years and has severe intellectual disability, cerebral palsy (the man has difficulty walking, moves in a wheelchair, his manual abilities are preserved); difficulties in verbal communication—slurred speech, he communicates by means of a PCS (Pictogram Communication Symbols) book—significantly limited independence.

The man stimulates his genitals with his hand, presses his penis through his clothes, or in a lying-down position presses his body towards the floor/mattress/bed. He sometimes takes out his penis and presses it with his hand. Such stimulation takes place in different public and private areas. He has been acting this way for about 9 years, most intensely around 15 years of age. The behavior happens throughout the day, most intensely when the man is idle. It does not appear at all or seldom when he is physically active or during bodily stimulating activities. It is possible to predict this behavior: the man becomes uneasy and tries to put his hand on his genitals, or while lying down he tries to roll on his stomach. Occasionally ejaculate appears. Bodily injuries do not occur during the stimulation.

The reaction of the environment for such behavior includes the following: focus distraction, messages such as "You are not allowed!" or "Don't touch!", taking his hands off the intimate spot and ignoring the behavior. Sometimes interrupting the actions causes self-injury (e.g., biting a hand). These responses are ineffective.

The gathered data lead to the establishment of the main causes for the problem behavior:

- Relieving sexual tension (physiological symptoms of sexual arousal, erection, sometimes ejaculation).
- Sensory impairment (looking for intense tactile sensation all over the body, including the genitals).

- A way of coping with boredom and inactivity (the stimulation intensifies when the man is idle or sits in his wheelchair for too long).
- Flashing in public has a bearing on the lack of understanding the difference between the private and public (places, activities, body parts).

Undertaken actions include:

1. Neurological and endocrinological consultations—issues excluded
2. Consultations with the institution staff: offering an intervention program, cooperation during its implementation, and summary consultation
3. Work with this man included the following areas (at school and at home):
   - Increasing the number of sensory integration classes, hydrotherapy
   - Taking the man off his wheelchair more often and increasing the number of activity classes
   - Introduction of the "activity plan" in the form of pictures illustrating the activities throughout the day (in the institution and at home)
   - Educational classes on the differences between the private and public: working on magnetic posters including silhouettes; designing a simple book "private and public" (photos of particular private places, attaching drawings illustrating acceptable behavior, e.g., masturbation only in their own bedroom or bath in the bathroom; exposed genitals only in their bedroom, bathroom, or toilets)
   - The introduction of symbols in the book: intimate parts of male and female body, a penis, touching the penis, correct place, and correct time
   - Teaching correct model of masturbation:
   - Place: determining the place where masturbation is possible—own bedroom, bed, bath in the bathroom (using photos of particular places, PCSs, drawings); indication of private places around the house (a red circle on the door)
   - Manner: teaching correct way of masturbation using a modified cartoon, presenting masturbation on a penis model, explaining to his mother the hand-over-hand method (moving her son's hand on genitals, showing the hand movement and leaving the room)
   - Time: scheduling private time in the daily activity plan (including masturbation, e.g., before the evening wash or in the morning, after wakeup)
   - Teaching the man to signal whenever he wants to be alone to touch himself—pointing at the "touching the penis" symbol in the communication book
   - In the institution: information such as "not here" or "not now," indicating correct time and place; using elements of applied behavior analysis (ABA) in case of an increased frequency of masturbation activities
4. Activities aiming at the man's mother: psychological education on sexual drive, masturbation and its non-sexual causes, the necessity to organize private space for her son and discontinuation of sleeping with him, and

explaining correct ways of response to masturbation by means of prepared communication tools

After about a month, as a result of these steps, the man seldom masturbates in public (he must be reminded of the rules). An important element of this work was the cooperation of the sex educator with the institution staff and systematic introduction of changes in the intervention program. The man's mother did not agree to the hand-over-hand method on religious grounds. As a result, the stimulation method remained: pressing and rubbing his penis without the clothes on—it does not injure the body but leads to ejaculation.

22.2.1.2 Breaching the Intimacy of Other People

A type of behavior which often leads to seeking help from a psychiatrist or sexologist is behavior whereby a person with intellectual disability breaches the personal boundaries of other people. These behaviors can include touching the personnel of institutions or other disabled mates (touching their intimate parts of the body or other parts of their body, cuddling, brushing), exposing oneself in front of other people, or other behavior involving crossing the borders (sending erotic or pornographic materials, conversations with sexual content, sexual advances, and others).

Some of this intimacy-breaching behavior may meet the criteria of sex crimes. Some research implies that 10–15% of all sex criminals are people with intellectual disability [19, 23]. Studies show that, similar to the general population, offenders tend to be mainly men [24]. The uncommon cases of women present specific tendencies towards sex provocations, pawing, or exposing oneself [16]. In the group of offenders with intellectual disability, seriously harmful sexual behavior is more seldom. A detailed analysis of sexual offences is presented in the study by Van den Bogaard et al. [25]. These are the following behaviors they describe: sexual contact, sexual act with a minor, rape, exhibitionism, flirting, possession of child pornography, using such websites, or making other people watch pornography.

In the literature there are two categories of sex offenders with intellectual disability. The first is "paraphiliac type" (rapes, child sexual abuse, recurring attacks using force). The second is "sexually inappropriate or naive" with common behaviors such as touching other people, exposing oneself, and/or public masturbation [26]. With reference to the above distinction, one can presume that type 2 offenders take up actions which may be regarded as "sexualized challenging behavior."

Drawing from knowledge gained from clinical work with patients with intellectual disability who engage in behaviors which breach the privacy of others, it is important to skilfully distinguish between "sexualized challenging behavior" and antisocial behavior. Doyle drew attention to the following differences and described them in detail in his article (Table 22.2).

Table 22.2 Differences between challenging behavior and sex offending (based on [9], p. 116)

Challenging behavior model	Sexual offending
Definition does not exclude any type of behavior. Assessment process and understanding based on the concept of functional analysis	Definition is a singular subset of behavior concerning sex offending
The person is not predisposed to perform the behavior[a]	The behavior is the expression of underlying sexual deviance
The aim of functional analysis is to define relationships between antecedents, behaviors, and consequences and ascribes logic and purpose to the behavior	In Finkelhor's[c] model, the aim is to describe an individual's progression towards offending by overcoming barriers
Risk may be underplayed by disability philosophy[b]	Risk is not underplayed by this model.[d] Risk assessed as part of process
Challenging behavior is considered as an adaptive response, i.e., best strategy to meet the person's needs	Sex offending is considered as maladaptive
Focus of assessment and treatment is on the purpose/function of the behavior	Focus of treatment is on how the behavior acts or presents, as in relapse prevention
Dignity of the individual is the primary concern due to social and historical reasons	Community protection is the primary goal
Aim is not to identify and eliminate behavior but to understand and teach alternatives	Purpose is to prevent or eliminate behavior
Educational approaches suggest functionally equivalent skills are most effective in reducing challenging behaviors	Skills taught are offence-specific and offence-related and not designed to meet the same purpose
Process does not become one of blaming the person with a disability for their behavior	The offender is responsible for his/her behavior, not the victim or the environment
A perception of deliberateness would interfere with the analysis and treatment of the behavior	Nature of the behavior is considered to be deliberate, e.g., grooming and elaborate fantasies
Challenging behavior is a result of an interaction between the person and the environment. There are triggers in the environment	Sex offending is the result of an expression of someone's sexual deviance.
Given the range of intellectual disability included, understanding the cognitive component is not always possible or central to the assessment	Children may be sought out and hence are not a trigger
Communication of intent is important	Fantasies and minimizations are integral to the understanding of sex offending
Aim is to manage and support the individual so as to make their behavior unnecessary	Criminal intent is important
Legalities in the literature refer to clinician providing service	Sanctions may include methods that prevent the behavior at all costs
	Legalities relate to offender and mandatory reporting by service providers

[a]The behavior is not the result of individual's specific issues. There are environmental, biological, educational, and social factors that contribute to the development and maintenance of such behaviors

[b]The concept that people with intellectual disabilities sexually offend intentionally is still foreign to many staff. It can increase the risk that sex offending behavior will be treated as sexually inappriopriate behavior

[c]"There are many variables involved in understanding a single offender and the conditions required for the behavior to occur once someone is motivated to abuse. Finkelhor identified three necessary conditions for a man to be sexually abuse. The first is overcoming internal inhibitions, such as conscience, guilt, and fear of reprisals. (…)Once the individual has justified the action to themselves, they must then put themselves in a position where they can access the child or vulnerable individual. This is the second condition. The third condition is that the offender must overcome the resistance of the victim. (…)Finkelhor's model places much less dependence on environmental factors as direct triggers to the behavior than the challenging behavior model. As shown by the Finkelhor model, sex offending behavior is conceptualised as more "deliberate" behavior than is intended by the term challenging behavior, although it can appear impulsive on first examination" ([9], page 113–114)

[d]In Finkelhor's model risk of offending behavior of people with intellectual disability depends primarly on personal factors (not only on environmental factors)

This chapter focused on the discussion of interventions with reference to type 1 behavior, namely, "sexualized challenging behavior" connected with breaching the intimacy of other people.

To make an intervention effective for a particular person with intellectual disability, it is essential to gather detailed information about this person and analyze the intimacy breaching behavior, the context of its occurrence, and conditions. Below there are presented issues which should be considered in diagnosis and intervention planning.

Information concerning the behavior itself is very important. The questions which should be posed are not different from the questions concerning the issue of masturbation, because they refer to an exact description of the given behavior (or behaviors), determining the place/circumstances when it happened for the first time and, when it recurs, determining the dynamics of the behavior, its frequency, signals spelling its occurrence, the extent to which the behavior disturbs the social relationship of the person, and their everyday functioning. When you gather *information about the person*, it is important—apart from basic data such as age, sexual development, level of independence, extent of intellectual disability, health condition, and way of communication—to obtain information concerning the extent to which the person understands the behavior in question and its social context.

It is crucial to determine *the factors which favor behavior* that can breach the personal boundaries of other people. Some possible hypotheses are presented below.

- Curiosity concerning human sexuality: this may lead to the person encouraging others to undress, may peep at them, or try to touch their intimate spots. It may occur that the person targets individuals who are more vulnerable such as children.
- Lack of appropriate social training concerning expressing feelings and closeness in relationship with other people. An adult person breaches intimacy, cuddles, paws, and tries to kiss because he or she did not learn other ways of expressing feelings, sympathy, or interest.
- Difficulty in understanding or lack of knowledge of social standards referring to sexual behavior, distance, and closeness in relationship with different people [27].
- Lack of knowledge concerning the following issues: difference between private and public (including places, activities, conversation, body parts) and correct distance—closeness in a relationship with different people (partner, family members, friends, peers, staff, acquaintances, strangers, etc.).
- Experiencing sexual arousal and difficulty in understanding bodily reactions, as well as lack of knowledge about the ways of releasing sexual arousal. In the moments of arousal, such a person may "seek help" from others to understand what he or she is experiencing through different forms of physical contact: brushing, cuddling, directing another person's hand towards their genitals, and touching other people's genitals.
- Recreating behavior observed in reality or erotic or pornographic films.
- Attention drawing. Behaviors such as public stripping, touching others' genitals, or other forms of breaching intimacy usually evoke strong emotional reactions in

the environment. These, in turn, even if they are a form of punishment, may reinforce such behavior due to the attention received.
– Past sexual abuse. The person recreates the behavior experienced with other people.
– Sensory processing disorders. The person may suffer from sensory over-responsivity and take off the clothes in front of others because he or she is annoyed by the label, seam, and material or when it is hot. They may also look for stimulation, especially when they suffer from under-responsivity; thus this person brushes against other people, presses the body against them.
– Hygienic or health factors. The person strips in front of other people, brushes against them due to, e.g., infection, itching, or genital pain.

Intimacy-breaching behavior presented by intellectually disabled people may involve deficits in knowledge concerning sexuality. However, it may not be explicit that such a deficit is a trigger factor for sexualized challenging behavior. Research done by Lunsky et al. [26] on the shortage of sexuality knowledge in sexual abuse criminals type I and II indicate such a correlation. It occurred that type I offenders, the "paraphiliac type" (this group commit sexual offences that are similar to those of paraphiliacs typical for offenders without intellectual disability: rapes, child abuse, etc.) possess more sexual knowledge than a matched group of individuals with intellectual disability without an offence history, in part because they are more likely to have received "corrective" sex education in the past. In turn, type II offenders, the "sexually inappropriate or naive" (sexually inappropriate in their behavior are not deviant per se), present similar knowledge on sexuality with a matched group without a history of problematic sexual behavior.

The quoted research may lead to a conclusion that taking up intervention based merely on providing information on sexuality is not enough, particularly in work with people with a history of more serious sexual crimes. However, sexual education may prove supportive during therapy and should increase social and sexual competence in intellectually disabled people, particularly those presenting sexualized challenging behavior. It should involve the following issues: private and public (body parts, activities, places, conversations), good and bad touch, closeness and distance in relationship with other people, appropriate and inappropriate ways of expressing feelings, striking up acquaintances, appropriate ways of fulfilling sexual urge (in an available way), and many other topics. In case of people with profound intellectual disability, teaching such competence should be based on using visual strategies (pictures, drawings, cartoon strips, social stories, video-modeling, anatomic dolls, role-play). Moreover, various tools and programs may prove helpful. One of them is the method of social circles developed by Walker-Hirsch and Champagne using circles which illustrate different levels of closeness to other people [28]. They help to order forms of contact with people pertaining to different social circles. With people in a closer circle (parents, partner), a closer physical contact is possible, e.g., hugging and a kiss. There are other forms of contact with people from further circles: handshake and conversation. People from the most distant circle are foreigners. You should be careful in contact with them (http://marklynchampagne.com).

In literature and the Internet, one may find many tools useful for sexual education with intellectually disabled people, e.g., www.sead-project.eu, www.traseproject.com.

Paraphilias or "Sexualized Challenging Behavior"?

The moment people with intellectual disabilities develop sexualized challenging behavior, the other people in their environment ask themselves if that behavior is still within normal clinical range or whether it is **a** paraphilic disorder and requires clinical intervention. The issue of atypical sexual preferences in people with intellectual disabilities is poorly presented in the literature. The empirical material on this topic is very limited probably due to the rarity of their occurrence and diagnosis. Some cases of paraphilic behavior were described by Kijak, though without confirming their qualification. He showed that exhibitionistic behavior concerned as much as a third of the participants (more often older men); about 2% of men showed some features of transvestism, 12% fetishism, 4% pedophilic behavior, and 2% zoophilic behavior. He also noted frotteuristic behavior (does not give the rate) and voyeuristic behavior (42% of participants) combined with masturbation [6]. In the literature you can usually find descriptions of individual cases, e.g., Faccini and Saide described a case of a man with minor intellectual disability who was diagnosed with pedophilia, sadomasochism, transvestic fetishism, voyeurism, exhibitionism, and asphyxiophilia [29]. Velayudhan and co-authors presented a case of a man who was diagnosed with intellectual disability, psychosis [30]. The issue of paraphilia has also been discussed in the literature in the context of sexual abuse crimes committed by people with intellectual disabilities. In a group of 86 offenders with intellectual disabilities, there were two cases of voyeurism and ten cases of pedophilia [31].

Unambiguous diagnosis of a paraphilia in people with intellectual disorders is questionable. Many atypical behaviors and specific preferences occur due to particular life experiences of people with disabilities. Therefore, the concept of "counterfeit deviance" has been introduced. "Using the data from more than 10 years of work with individuals referred for sexual offences (ranging from exposure to sexual assault and child molestation), the authors of the concept noted that some of the individuals presented differently than anticipated for someone with paraphilia. On examination of the case files it was noted that the presenting behaviors, although inappropriate, were the product of different diagnostically significant factors. These factors were noted to influence the commission of sexually inappropriate behavior. It was this observation that lead to the concept of "counterfeit deviance [32]." But it must be clarified that the theory of "counterfeit deviance" never denied paraphilia in persons with intellectual disabilities.

It is indicated that the diagnosis of paraphilia in this group of people should include the following principles:

- Exclusion of counterfeit deviance especially in people with verbal communication disorders.
- Diagnosis of paraphilia may be drawn only in a situation when it is possible to eliminate the possibility that the behavior was caused by atypical experi-

ences due to living in an institution or abuse, reconstruction of traumas, deficiency in differentiation between private and public places, due to disorders (including genetic ones), lack of correct and developing experiences (including sexual ones), inability to recognize one's own age, and age of the child or sexual partner.

Eleven alternative hypotheses were the basis for "counterfeit deviance" for which any assessment needed to take into consideration: the structural hypothesis suggested that some individuals with intellectual disabilities have lived or continue to live in environments where the policies and practice prohibited the expression of appropriate sexuality; the modeling hypothesis proposed that some appropriate expressions were modeled on staff behavior (the lack of privacy, etc.); the behavioral hypothesis proposed that inappropriate sexual behavior was rewarded; the partner selection hypothesis proposed that many individuals with intellectual disabilities existed in a socio-sexual "peer-void" because they lacked both opportunity and social skills to develop appropriate relationships; the inappropriate courtship hypothesis postulated that restricted living environments, often in same-sex wards, led to a lack of courtship skills resulting in blunt, often aggressive attempts at courtship; the sexual knowledge hypothesis—a lack of appropriate and comprehensive sexual knowledge—was sometimes the cause of inappropriate sexual behavior; the hypothesis of perpetual arousal (an inability to masturbate causes varied from medication, lack of privacy, etc.); the learning history hypothesis looked at the relationship between the experience of both sexual abuse and a lifetime of receiving harsh negative sexual messages; the hypothesis of moral vacuum, the individual may not have developed standards on which to judge their own behavior or that of others; and the medical hypothesis (the occurrence of health problems and side effects of medicines taken) [32].

It is important to understand that none of these hypotheses imply that these are characteristics of all sex offenders with disabilities. Furthermore these hypotheses only assist a clinician in determining appropriate treatment regardless of the existence of paraphilia. It was possible, according to "counterfeit deviance," for an individual with a disability to have a paraphilia exacerbated by the presence of one of these hypotheses [32].

It should be highlighted that "counterfeit deviance"-type behaviors are not usually connected with ongoing fantasies or sexual desires; they are learned and can be diminished or changed through educational, therapeutic, and sometimes pharmacological interventions. However, they require a person-oriented attitude. Such counterfeit deviance behavior may be ranked into the category described in this chapter—"sexualized challenging behavior." Therefore, they need focus and broad-context analysis. It is essential from the clinical perspective.

According to Griffiths et al. [32] "The theory of "counterfeit deviance" was designed to encourage clinicians, many of whom may not be cognizant of the experiences of those with intellectual disabilities, to think outside the box and inside the life of a person with a disability and to show caution in making diagnoses based on the offence behavior alone. To delve into the history and context of the situation

to provide the explanation and hence make treatment decisions for inappropriate behavior. It is important for those who work with sex offenders with an intellectual disability to look beyond topography. However, by thinking critically about seemingly deviant behavior, it is possible to come up with a variety of other explanations. The theory of "counterfeit deviance" provides some of these other possible explanations."

22.3 Key Messages

When working with intellectually disabled people and sexuality, it is worth remembering the following rules:

- The basis for successful intervention is communication with the patient; therefore it is essential to recognize in detail the way the patient communicates with other people (taking into account alternative and augmentative communication methods—AAC).
- The essential element of intervention concerning sexuality is psychological education and supporting parents or caregivers of intellectually disabled people.
- In diagnosis and therapy, it is essential to include non-sexual causes of problematic sexual behavior.
- In the diagnosis of paraphilia in intellectually disabled people, we must be very careful and differentiate behavior of acquired character ("counterfeit deviance") and behavior which is a sign of the patient's preferences.
- The positive influence of multicomponent behavioral interventions on the reduction or elimination of problematic sexual behavior is clearly demonstrated. While it is difficult to isolate which components of the intervention were effective, it appears that the use of differential reinforcement procedures and the teaching of appropriate replacement skills or functional alternatives (e.g., through functional communication training) are an important component of intervention for inappropriate sexual behavior [27].
- The modification of behavior involving breaching the intimacy of other people cannot exclude the issues involving the fulfillment of the person's needs (need of closeness, need of sensory stimulation) and should be incorporated into the general work scheme, which should be adjusted to the patient's intellectual capabilities and life conditions.

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Autism Spectrum Disorders

23

Trudy Griffioen

23.1 Introduction

Autism spectrum disorder (ASD) is a neurobiological developmental disorder affecting the development of social and communicative skills, causing unusual responses to the environment and often appearing in childhood [1]. The symptoms of the disorder can range from minimal to severe. In 2008, the prevalence of ASD was found to be 11.3 per 1000 (or one in 88 children aged 8 years). Overall ASD prevalence estimates vary widely across different study sites (range: 4.8–21.2 per 1000 children aged 8 years) as well as by sex and by racial/ethnic groups. The prevalence of ASD among boys is one in 54, among girls one in 252 (meaning a male-to-female RR of 4.6) [2].

ASD is theorized to be caused by one or more factors acting on the central nervous system with a genetic origin. Studies of monozygotic twins show a concordance rate of 50–70% and Rosenberg estimated a heredity of 60 and 40% due to environmental factors [3]. Neurocognitive studies suggest that a lack of connectivity between specific brain structures may explain many of the cognitive and emotional deficits. Syndromic autism is seen at high rates in various genetic disorders such as Tuberous sclerosis (2%), Fragile X syndrome (1%), 15q11-q13 duplications, Down syndrome, and single gene disorders of metabolism such as adenylosuccinate lyase deficiency [1]. Formal characteristics of persons with ASD are described in Table 23.1.

In addition to the formal criteria, clinical observations often will show:

- Social isolation: People with autism (PwA) show a lack of interest in interpersonal relationships.

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Table 23.1 Formal characteristics of persons with autism spectrum disorders

Severe impairments in social interactions:
Lack of emotional reciprocity
Lack of empathy
Difficulty developing friendships
Difficulty with visual, facial expression, and nonverbal language
Unusual, stereotyped, and restricted interests:
Fixed routines and rituals
Stereotyped behaviors and movements
Intense interest in certain parts or aspects of objects
Impediment in social, occupational, and other important functioning

- Communication: PwA do not decode nonverbal language cues. Verbal exchanges resemble a monologue rather than a two-way exchange. Neologisms may be used.
- Stereotyped gesticulations: PwA can show tics, repetitive motor movements, etc.
- Deficits in theory of mind skills (see Box 23.1).
- Emotions: PwA have emotions, but it is difficult for the PwA to express and decode emotions in themselves and in others. Sometimes there also is emotional dysregulation.
- Sensory responses: PWA can have hypo- and hypersensitivity of the senses. Hypersensitivity is more common in women than in men with ASD. This may explain some sexual problems. Hypersensitivity of the erogenous zones can make it for example impossible to be touched or to have sexual intercourse.
- Motor function: PwA can have deficits in fine motor skills and in skills for hand-eye coordination.
- Self-awareness tends to be low in PwA.

These impairments are important for everyday life. The ability to solve problems, make choices, and plan the future becomes problematic. This is called "context blindness." All these characteristics can be a reason to have problems with intimacy, sexual relationships, or masturbation.

Box 23.1 Theory of Mind

After research in chimpanzees, Premack and Woodruff defined the theory of mind as the ability to impute mental states to oneself and to others [4]. The ability to make inferences about what others believe to be the case in a given situation allows one to predict what they will do. In children this is clearly a crucial component in the development of social skills [5, 6].

23.2 Clinical Manifestations

Both society and many healthcare professionals have the impression that sexual feelings in individuals with a disability such as autism are diminished or absent. A systematic review and meta-analysis of existing literature reveals that PwA have greater difficulty adhering to privacy norms, engage less in social behavior, are engaged in less appropriate sexual behavior, have greater concerns about themselves, and receive less sexual health education [7]. Sexual development is a continuing process with biological changes and psychosocial demands in each life stage that need to be dealt with properly to attain good sexual health. It is an intricate process that covers elements of hormones and external sexual characteristics, gender identity, and experiencing sexuality regarding oneself and others. One of the basics for a healthy development of the triad 'sexual identity, sexual orientation, and sexual behavior' are the social skills that influence and determine a person's opportunity for romantic and intimate relationships. Sexual orientation and experience with romantic relationships was examined in a sample of 675 adolescent and adult PwAs and compared with a group of 8.064 general population peers [8]. Sexual orientation was more varied both in male and in female PwA. Compared to the general population, less PwA feel exclusively attracted to a partner of the opposite sex (with especially more female PwA having a lesbian relationship.

23.2.1 Children with Autism

In the approach to autism, it is recommended that we explicitly give children the message that their sexuality is precious and wonderful, but that the same goes for other people as well. In the process of learning the own body and that of others, they have to recognize the differences between people and to learn what is normal and what is abnormal. Part of this process is teaching them the correct names for their body parts in an open and relaxed language. Especially for ASD children it seems relevant also to pay attention to the more vulgar words for the different body parts.

Case Report 1
Jony (with ASD) and his playmate Ella are both 5 years old. They are playing doctor. However, Jony does not want to play patient because it is not real. "I am not ill." Ella explains to him that it doesn't matter: "Just do as if!" Jony looks stressed and although he tries to do what Ella asked him, he repeats again and again that he is not ill. When Ella tells him to play in another way Jony gets so stressed that he runs away.

Didactic Questions

What is apparently happening here to Jony?

Could that be because of touching each other?

What are the autistic signs in this case?

Playing doctor is a common form of children's play with touching, exploring, and fantasy. In some children with ASD, this can become a problem because of lack of imagination, troubles with how to "play as if," or because they don't like to be touched (which can be a result of a sensory problem). There are also children with ASD who cannot stop such playing, and they do it again and again in the same way and some will continue with this play when they become older.

Case Report 2

Michael, a 12-year-old boy with ASD regularly plays with Richard, his 7 year old neighbor. On the first sunny day in spring when playing in the garden they try to pee as far as possible. They also compare their penises. That is seen by Richard's mother who is surprised and also a bit worried.

Didactic Questions

The mother, in some way worried, approaches you as HCP:

Do you consider this behavior as sexual?

Do you consider this as suspect for abuse?

Do you believe it necessary to stop their play?

What should you explain to the mother?

Because of differences in socioemotional development ASD children play more than average with younger children due to their own developmental delay. The kind of play as in this case can raise questions about abuse but is often normal in the development of the ASD child.

23.2.1.1 Managing Sensory Issues

Sensory issues can have an impact on romantic relationships for young people with ASD. For example, if a child isn't comfortable hugging other people, this affects the ways she or he can express affection and attraction. On one hand some children with ASD don't like being touched, and that's ok. On the other hand, there are also children with ASD who are comfortable with touching, but don't understand how to respectfully do that to others and when to stop it.

23.2.1.2 Sexuality Education

All children need proper sexuality education, but children with ASD deserve extra attention specifically regarding:

– Body awareness including the need to treat one's own and someone else's body with respect
– Awareness that for oneself and others sexual feelings are personal and private
– Awareness of appropriate boundaries and the various ways to show regard for oneself

23.2.2 Teenagers

Teenagers with ASD develop sexually and have romantic feelings just as other children of their age. Sexuality also deals with the way a teenager feels about his or her developing body. It's how he/she understands feelings of intimacy, attraction, and affection for others, and how he/she develops and maintains respectful relationships. Teenagers with ASD might need extra help to build the social skills and maturity that go along with developing sexuality. Many teenagers with ASD can find it hard to understand feelings of intimacy, attraction, and affection in themselves and others. It might also be harder for them to express their feelings. Communication with contemporary teenagers can be confusing; with ASD it can be hard to understand that people can feel embarrassed about expressing deep romantic feelings for somebody.

It is not easy to develop dating skills for intimate situations. How does one observe and learn what is expected? How do they know what is "normal"? Experiencing sex is for nearly every teenager a stressful situation. Teenagers with ASD often ask their peer group about their sexual experiences, but out of shame they do not dare to ask relevant details.

Case Report 3
Mario, a boy of 16 years with autism, wants to go out with a girl, but that makes him very nervous. He has been searching internet, without finding the answers on his questions. He then asks his father about kissing: "Can you explain me how it will feel to kiss? How long do I have to do that? What am I expected to do after that?"

The father could in such a situation respond with:

"You may see how it develops and you may also ask the girl what she likes. Kissing can be an intense and pleasurable feeling."

23.2.2.1 Respectful Relationships

Whereas it is important for all teenagers to understand the difference between good and bad signs in a relationship, teenagers with ASD need extra and clear explanation about this. Knowing what is "good" and what is "bad" will help the youngster to develop a healthy, respectful, and romantic relationship. Some examples of "Good Signs" and "Bad signs" are shown in Table 23.2.

Table 23.2 Good and bad signs in romantic relationships

Examples of " good signs"
• The other person only asks you to do things that you feel safe and comfortable with
• The person is honest and doesn't tell made-up stories to you about family members or peers
• The person listens to you as much as you listen to him/her
• The person doesn't expect you to do everything that he or she wants. For example, the person is happy if you want to do something different or go out by yourself or with other people
• The person supports you. For example, the person says nice words to you and helps you when you're upset
• The person doesn't tease or bully you or say things that make you feel bad
Examples of " bad signs"
• The person doesn't give you much attention or affection in return for your feelings
• The person says mean things that make you feel stupid or bad
• The person hurts your body or private parts or your feelings about your body. For example, the person makes you do something that makes you feel uncomfortable
• The person doesn't want you to meet friends and family
• The person bullies you

Teaching a teenager with ASD about personal boundaries will help him or her to avoid embarrassing situations and also help prevent him or her from getting into risky situations. Studies show that PwA experience more challenges in a wide variety of sexuality related issues, including their bodily changes during puberty, privacy rules and customs, and masturbation [9, 10]. In addition, adolescents and adults with ASD have far fewer sexual experiences than their typically developing peers, despite their expressed sexual interest. Intimacy is the mutual sharing of emotional, cognitive, and physical aspects of oneself with another person. Whereas this already is difficult for many youngsters without ASD, with ASD this phase can become very difficult because of the unpredictability of the situation, but also because of the own rigidity and need for repetition. Being less able to read thoughts, feelings, and desires of "the partner" can lead to miscommunication and shameful or guilty situations.

23.2.2.2 The End of a Romantic Relationship

For many teenagers it is very hard to deal with the end of a romantic relationship. They will think and feel that it is not possible to overcome the situation. Teenagers with ASD often need extra support to deal with that. They also will have more problems with implicit messages and sentences like: "We are friends, but I do not want to have a relationship" or "I like you but it doesn't fit anymore between us."

23.2.2.3 Teenagers and Masturbation

Boys tend to start masturbation at the beginning of puberty and girls usually some years later. Experiencing an orgasm can be rather confusing when it happens for the first time. This should not cause unnecessary concerns. In the literature an

Table 23.3 Differences in trauma incidence between people with high and people with low-autistic traits according to Roberts [13]

	Lowest quintile autistic traits (= reference group) (%)	Highest quintile autistic traits (%)
Any child sexual abuse	26.7	40.1
Pressured into sexual contact	15.6	25.4
Physical/emotional abuse	14.3	23.9
PTSD	4.5	10.7
Physically injured by parent/ caregiver	6.0	13.2

accepting approach to masturbation training for PwA is generally promoted [11]. In an overview of 55 English language articles masturbation was observed in 40–78% of male PwA and in 20–54% of female PwA [8]. These rates are lower than in the normal population. For instance in Dutch youngsters (aged 18–20 years), 93% of the boys and 73% of the girls reported masturbation [12]. Some youngsters need teaching on where and when to masturbate and on how to develop a proper balance.

23.2.3 Abuse

All individuals with disabilities run an increased risk for various forms of abuse as shown in an American population-based study, where women with the highest quintile of autistic traits were compared to women in the reference group (the lowest quintile) [13]. See Table 23.3.

The increased risk for abuse in PwA is due to their lack of understanding the meaning of behavior; to their desire to be socially accepted; and to what could be called their "naive nature". However, the opposite is also possible. Some PwA may have problems with determining what behavior is acceptable and where. Examples of wrong behavior are masturbation in public, inappropriate touching of another person, obsessive sexual interest, or stalking. People with ASD can be vulnerable to abuse because they don't always recognize when something isn't right. Consequently, parents might need to explicitly teach the child the difference between "good touch" and "bad touch." For example, good touch is something that friends and family might do to show they care for each other. These touches might include a handshake to say hello, a hug, or a kiss. A bad touch is something that feels wrong or uncomfortable, like a stranger asking for a kiss.

Some examples of bad touch can be:

- Someone who is not my boyfriend or girlfriend touches me in my private areas.
- Someone hits me.
- Someone touches me and makes me feel unsafe or uncomfortable.
- Someone kisses me when I don't want them to.

Furthermore, the context can be discussed with the teenager with focus on that it makes a difference who is giving the touch:

- Hugs, kisses, and touches from people I know and love can be good touches.
- The same touches from people I don't know and love can be bad touches.

Sexual inappropriate behaviors among people with ASD have been reported in several case studies [14]. Sexual offenses, masturbation in public, and inappropriate romantic behaviors are described. In many of those cases, it is not clear whether the person was aware of the consequences of his or her behavior. The group of adolescents and adults with ASD demonstrated more inappropriate courtship behaviors and less appropriate strategies compared with controls [15].

23.2.4 People with Autism Spectrum Disorders and Relationship(s)

23.2.4.1 The Meaning of Relation and Relationship

Some individuals with ASD have problems understanding what is meant by a relationship. There is not only the dictionary explanation but also how the relationships in their social surrounding are experienced. When working with PwA, it is important for the healthcare provider to investigate what the PwA means by relationship. In the realm of sexual therapy and sexuality education, it is especially important to check again and again if the various terms and meanings that are used and discussed actually are understood.

23.2.4.2 Being in a Relationship

Part of the individuals who like a relationship are fortunate enough to find a partner who has the same wishes. Then one still will be confronted with the expectations of the society, culture, and parents. Without ASD it is already a hard challenge to figure out what the other wants. That's why partners have to talk together and clarify intimate and sexual needs, desires, and fears. When having ASD the relationship can be strained, because it tends to be more difficult for both partners to properly interpret the spouse's need for emotional and intimate attention. Sexual intimacy differs from person to person and from couple to couple. Some people do not like much kissing, foreplay, or touching. For individuals with ASD, it is important to explain what they don't like. There are often problems with sensory issues. Questions as: How much talking should I do? Some ASD individuals want to explain themselves fully. They want to say their sentences from the start to the end. A long duration is no guarantee that a relationship will become easy. Relationships are continuously changing, with an amount of change usually being welcome and healthy, but sometimes threatening. In a relationship where one partner has ASD, one has to continuously check perceptions and emotions.

Case Report 4

Sandra, 25 years of age with ASD, was asked by her boyfriend to go to a movie. In the cinema, Sandra became very stressed by the loudness of the soundtrack and the smell of the food. She couldn't talk to her boyfriend and left the cinema. She was aware that the evening, instead of romance, had become a disaster for her and her boyfriend. They walked home and even a hug was too much for her. Her boyfriend was not successful in calming her. So, he left, not knowing what went wrong. The next day Sandra was tired but unable to explain what had happened last evening.

Didactic questions:

Could you explain what was happening to Sandra?

Could you explain to her boyfriend what happened and how he could have reacted?

It is possible that going to a movie is a new situation to Sandra. If so it will be helpful to explain beforehand what can be expected in the new situation. It is also possible that her reaction is the result of hypersensory problems; it is very hard for her to handle the oddness of her surroundings and the smell of food.

23.2.4.3 Partners of Persons with ASD

Dealing with and accepting the autism diagnosis is also important for the partner. He or she should recognize own relationship strengths and weaknesses and any relationship skills that need improvement. More than in other relationships, both partners need strong motivation to be able to work on strategies for improving the quality of their relationship and to gradually further develop their behavior, abilities, and routines. There is literature that provides guidance on relationships written by couples where one partner has Asperger's syndrome, and by specialists in Asperger's syndrome [16–18]. There are also web-based support groups (www.faaas.org; www.aspires-relationships.com). In recent years there has been the development of local support groups. It is a platform for partners to share and understand the experiences with a partner with ASD with information about intimacy and sexual situations, but also various other situations.

23.2.5 Elderly

Becoming older is characterized by more health problems, loss of friends or partners, changing needs, and changing physical and emotional capacities. For PwA this development can be more complicated because some have difficulties with flexibility, emotions, and physical problems. Compensation capabilities decrease in the elderly with ASD who suffer from cognitive loss [10]. For example if it is not possible to have sexual intercourse in the familiar way, it can be difficult to imagine how to continue sex with a partner. When growing older it can be confusing that it may take more time during masturbation to reach an orgasm or to need more and longer stimulation during sexual intercourse.

23.3 Clinical Management

23.3.1 Sexuality Education

Education on what ASD is and on *How to deal with it* is not only very important for individuals with ASD but also for their parents, teachers, siblings, and partners. Many courses have been developed with education about communication, on the recognition of emotions, and on relationships. Some courses also mention and discuss sexuality related items.

Examples of such programs are:

- The TEACCH program is made for the lower functioning PwA and contains sexuality education [19].
- A guide has been developed about sexual education for PwA. This guide pays ample attention to aspects of masturbation (how, when, and where), physical contact, sexual abuse, menstruation, and dating rules [20].
- There is also a program for the development of social sexual skills [9]. This program is split into 12 workshops, tailored to the needs of the PwA. In this model the parents and partner are expected to attend the first workshop.

Sexuality education is important for all children and teenagers. Compared to peers, children, and youngsters with ASD often lack information. Their interaction with other people and their process of experimenting and learning through the peer group is less adequate. They also tend to take information very literally; they sometimes can have problems with sensory aspects or they lack imagination. To adequately teach these youngsters one has to check again and again how much of the information is understood. Recently Medavarapu and coworkers described the evidence of the efficacy of each treatment modality for autism spectrum disorders [21]. They concluded "Although there are interventions that may be effective in alleviating some symptoms and improving skills that help PwA lead more productive lives, proven benefits were observed only with applied behavioral analysis (ABA) and some psychopharmacologic agents."

So how can that be used in sexuality education?

Some youngsters need teaching on where and when to masturbate and on how to develop a proper balance between masturbation and other activities. Some boys need explanation on how a penis works and why they cannot urinate with an erection. In youngsters with tactile defensiveness masturbation may develop differently. The individual may rub harder or with short rapid movements. Then it can be important to check out if the masturbation is pleasurable and not harmful for the boy or girl [9].

Young woman may need explanation where to find the clitoris and what it actually does. They sometimes need extra lecturing on hygiene and on practical aspects of sanitary napkins or tampons. For a girl going through puberty, masturbation is a natural activity. So, for the parents of a girl with ASD, an important message is to let their daughter know that masturbation is normal, but also to

encourage her to only masturbate in a private place and when she's alone. Parents might need to help their child recognize private places ("A private place is where other people can't see you"). Sometimes the parents have to make a list of private places with pictures or photos [9].

Examples of such private places for the child are:

- The bedroom with the door and the curtains closed.
- The bathroom with the door closed.
- The shower with the bathroom door closed.

23.4 Key Messages

- People with autism (PwA) are prone to have difficulties in sexuality both when alone and when they are with another person.
- It takes them much more effort to learn from their peer group.
- Being very explicit is important in the education (including sexuality education) of PwA. Explicitness is also needed in the context of a (romantic) relationship.
- In romantic relationships, PwA tend to show very little initiative. That is usually not because they don't like being intimate, but because it is a consequence of the autism.
- Some of PwA like to exhibit the same behavior again and again. When masturbation becomes part of such repetitive behavior, it can cause health and sometimes social problems.

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Impact of Psychotropic Medications on Sexual Functioning

24

Michal Lew-Starowicz and Annamaria Giraldi

24.1 Introduction

The brain regulates not only mental but also the majority of physiological processes in our bodies through a variety of chemical compounds including monoamines, neuropeptides, hormones, and their receptors. During decades of research, several of these compounds have been identified and investigated in clinical studies, and a lot of them have been introduced for the treatment of mental disorders. It seems that psychopharmacology represents the most complex and differentiated part of medical chemistry, and it would be very hard to think about modern psychiatry without the use of psychopharmacology.

Medications used for the treatment of mental disorders vary according to their targets (neurotransmitter, molecule, or system being modified), mechanisms of action (e.g., receptor agonist, antagonist or partial agonist, reuptake inhibitor, enzyme modulator, ion channel blocker), pharmacokinetics, and pharmacodynamics. In the literature, psychotropic agents are classified in two different ways. The first is related to the specific disorder or group of disorders they are indicated for (e.g., antidepressants, anxiolytics, antipsychotics). This may cause some confusion, as certain drugs may belong to more than just one category (e.g., selective serotonin

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reuptake inhibitors are used as antidepressants and anxiolytics, and second-generation antipsychotics are also used as mood stabilizers). The second is related to the target molecule and mechanism (e.g., dopamine receptor antagonists, serotonin reuptake inhibitors). However, many drugs affect more than one molecule and implement different mechanisms of action, e.g., aripiprazole acts in different brain regions as partial agonist of dopamine (DA) D_2, D_3 and serotonin $5HT_{1A}$ receptors (5-hydroxytryptamine, 5-HT) and antagonist of serotonin 5-HT_{2A} receptors, while vortioxetine is a serotonin reuptake inhibitor as well as a partial agonist of 5-HT_{1A} and antagonist of 5-HT_3 receptors. In this chapter we will use both of these classifications, where target/mechanism-oriented nomenclature will be used to explain how psychotropic medications may affect sexual functioning, and indication-based nomenclature will be utilized in order to show the burden of medication-related sexual dysfunctions in certain mental disorders as well as give advice on their management and minimizing the negative effects on the sexual well-being.

24.2 Mechanisms of Psychotropic Medication-Induced Sexual Dysfunction

Psychotropic medications may influence sexuality in different ways causing immediate or different, short- or long-lasting changes in sexual functioning. The effects can be direct or indirect, specific or nonspecific. For example, decreased desire can be a direct and specific consequence of dopamine antagonist treatment, whereas erectile dysfunction due to metabolic syndrome triggered by psychopharmacological treatment is an indirect effect and fatigue due to treatment is a nonspecific risk factor for sexual problems.

As monoamines and hormones play an important role in the physiology of sexual response (see Chap. 7 for more information), medication-related changes in neurotransmission, monoamine receptor-binding, and hormonal balance can have a profound effect on sexual response. Finally, metabolic complications that are commonly seen in patients treated with psychotropic drugs are known as risk factors of both cardiovascular and sexual disorders. These mechanisms will be described below.

24.2.1 Influence on Neurotransmitters and Hormones

Overall, dopaminergic transmission is involved in sexual excitation while serotoninergic transmission is involved in sexual inhibition, both affecting sexual desire, arousal, and orgasm/ejaculation. The dopamine (DA) input to the mesolimbic system, also known as the "emotional brain," is associated with the anticipation of pleasure and incentive motivation and therefore promotes sexual appetitive behaviors, while in the medial preoptic area (MPOA) it stimulates consummatory responses (including genital arousal and thrusting). Sexual inhibitory effects of serotonin (5-hydroxytryptamine, 5-HT) are localized in the lateral hypothalamus

where the increase of 5-HT release was found after ejaculation in animal studies, and in the nucleus paragigantocellularis (inhibition of a genital sexual response). Low doses of 5-HT may facilitate sexual response through 5-HT auto-receptors (5-HT_{1A}) while high doses have inhibitory effects. A similar pattern ("U-shaped" dose-response curve) was described for noradrenaline (NA); however, the complexities of noradrenergic regulation of sexual response remain poorly understood [1]. Genetic factors like dopamine and serotonin receptor polymorphisms may, at least to some extent, influence individual vulnerability to medication-related sexual dysfunctions [2, 3].

The direct effect of psychotropic medications on sexual functioning is nowadays understood mainly as affecting the DA (excitatory) and 5-HT (inhibitory) balance. Therefore, DA antagonists (especially antipsychotics blocking the D_2 receptors in mesolimbic area) and drugs increasing 5-HT transmission (commonly antidepressants and some antipsychotics) through 5-HT_2 receptors contribute to impaired sexual functioning [1, 4]. In particular, reducing dopamine activity in the mesocortical pleasure centers directly by blocking D_2 receptors or indirectly by stimulation of $5HT_{2A}$ receptors can cause apathy and decreased libido while stimulation of 5-HT_{2A} and 5-HT_{2C} receptors inhibits the spinal reflexes of orgasm and ejaculation [5]. Conversely, medications increasing dopaminergic activity (L-Dopa, DA agonists) have been reported to cause hypersexual behavior in some patients treated for neurological conditions such as Parkinson's disease (see Chap. 30 for more information). 5-HT_{2A} antagonists may incur less sexual dysfunction and 5-HT_{1A} autoreceptor agonists have a favorable effect on sexuality by reversing the serotonergic inhibition [4, 6]. Dopaminergic antagonists also influence the prolactin (PRL) level. D_2 receptors blockade in the tuberoinfundibular pathway results in increased PRL release from the anterior pituitary gland.

Hyperprolactinemia is linked to sexual dysfunctions, both directly with erectile dysfunction, decreased desire, and orgasm problems as well as indirectly due to its associated clinical symptoms including galactorrhea amenorrhea, infertility, breast tenderness, and hypogonadism (in men) [5, 7]. DA antagonist-induced hyperprolactinemia was often suggested as causing sexual dysfunction, but the research evidence is not so clear and this area needs further investigation.

Anticholinergic effects were associated with reduced peripheral vasodilatation resulting in impaired genital vascular response (especially erectile dysfunction) [8]. Erectile dysfunction may also be related to the inhibition of endothelial nitric oxide synthase and related endothelial dysfunction and decreased nitric oxide production, as well as beta 2-adrenergic related vasoconstriction [9, 10].

On the other hand, sexual adverse effects have been found useful in the treatment of some sexual dysfunction. The prolongation of ejaculation latency by increasing serotoninergic transmission is implemented for the treatment of premature ejaculation. For this purpose, long-acting selective serotonin reuptake inhibitors (SSRIs) are used "off-label," while the short-acting SSRI dapoxetine was the first oral medication registered for the treatment of this sexual dysfunction [11, 12] (see also Chap. 11 for details).

24.2.2 Side Effects That Indirectly Interfere with Sexual Activities

Blockade of D_2 receptors in the nigrostriatal DA pathway, typically caused by antipsychotic agents, may result in movement disorders known as extrapyramidal symptoms (EPS, with the common clinical picture of parkinsonism) or tardive dyskinesia (hyperkinetic movement disorder including facial and tongue movements like chewing, tongue protrusions, facial grimacing, as well as jerky or choreiform limb movements). Acute stimulation of 5-HT_{2A} and 5-HT_{2C} receptors may cause mental agitation, anxiety, or akathisia. Antipsychotics and some antidepressants blocking muscarinic cholinergic receptors will cause constipation, blurred vision, dry mouth, or drowsiness. Drowsiness is also a typical side effect of histamine-1 and alpha-1 receptor antagonists [5]. These symptoms may affect physical appearance, foreplay, and energy to have sex. Especially intimate touch, caressing, or relaxation may become complicated when anxiety, psychomotor agitation, tremor, or increased muscular tension is an issue. Dry mouth and facial or tongue dyskinesia will complicate intimate kissing while discomfort related to increased sedation or constipation will distract from focusing on sexual pleasure and decrease arousal and interest in sexual activity.

Metabolic complications People suffering from severe mental illness (SMI) like schizophrenia and related psychoses, bipolar or depressive disorder are much more prone to cardiovascular diseases (CVD) that leads to a 2–3-fold higher mortality rate and 10–20 year shortened life expectancy. Obesity and other metabolic syndrome risk factors are the major contributors [13]. CVD and metabolic syndrome are major risk factors for sexual dysfunctions, especially erectile dysfunction in men [14, 15]. Low physical activity that often links with clinical symptoms of SMI (like apathy, decreased mood, and drive) and psychotropic medications seem to be the key players. The neurochemical mechanisms behind psychotropic medication-induced cardiometabolic complications include 5-HT_{2C} and histamine-1 receptor antagonism associated with weight gain and possibly increased appetite, muscarinic-3 receptor antagonism that can impair insulin regulation, and possibly other, yet unknown pathways, all together leading to hypertriglyceridemia, insulin resistance, diabetes, and cardiovascular events [5]. Obesity is also related with increased risk of male hypogonadism and related sexual dysfunction, especially decreased desire. On the psychological level, it can lead to negative self-image, worse social functioning, and difficulties in establishing and maintaining intimate relationships.

24.3 Impact of Particular Psychotropic Medications on Sexual Function

Below we will elaborate on the impact of different groups of psychotropic medications (specified according to clinical indications) on sexual function. Data has been summarized in Table 24.1 and is estimated according to several references [6, 8, 16–21]. It is important to notice that the grading is only guiding as it represents a summary of many different types of studies with different comparators and different number of patients included.

Table 24.1 Sexual side effects of psychopharmacological interventions

	Desire	Arousal	Orgasm/ejaculation	Overall sexual dysfunction
Antidepressants				
Agomelatine	P	P	P	P
Amitriptyline	+++	+++	+++++	++++
Bupropion	P	P	P	P
Citalopram	++++	++++	+++(+)	+++++
Clomipramine	+++	+++	+++++	++++
Duloxetine	++	++	+	+++
Escitalopram	+(+)	+	++(+)	+++
Fluoxetine	+++	+++(+)	+++	++++
Fluvoxamine	++	++	+	++(+)
Imipramine	++	++	++	+++
Isocarboxazid	++(+)	++(+)	++(+)	++(+)
Mirtazapine	+(+)	+(+)	+(+)	++
Moclobemide	+(+)	+(+)	P	+
Nortriptyline	++	++	++(+)	+++
Paroxetine	++++	++++	++++	+++++
Reboxetine	+(+)	++	+	++
Selegiline	P	P	P	P
Sertraline	++++	+++(+)	+++(+)	+++++
Venlafaxine	++++	++++	+++(+)	+++++
Vortioxetine	P(+)	P(+)	P(+)	P(+)
Antipsychotics				
Amisulpride	+++(+)	++	++	+++
Aripiprazole	+(+)	+	+	+(+)
Clozapine	+++	++	++	+++(+)
Haloperidol	+++(+)	++(+)	++	+++(+)
Lurasidone	+?	+	+?	+?
Olanzapine	+++	++	++	+++
Paliperidone	+++(+)	++(+)	++	+++(+)
Perphenazine	++	++	+++	+++
Quetiapine	++	+(+)	+	++
Risperidone	+++(+)	++(+)	++	+++(+)
Thioridazine	+++	++++	+++(+)	++++
Ziprasidone	++	++	++	++
Anxiolytics				
Benzodiazepines	+(+)	+(+)	+(+)	+(+)
Buspirone	P	P	P	P
Mood stabilizers				
Lithium	++	+(+)	+	++
Antiepileptics				
Carbamazepine	+(+)	+(+)	+	+(+)
Lamotrigine	P	P	P	P
Valproate	P	+	P	+

Adapted from multiple references [6, 8, 16–21]

The incidence of sexual side effects is based on several references and may vary between the different studies. The table gives an estimate

+ = side effects at <10%, ++ = side effects at 10–30%, +++ = side effects at 30–50%, +++ = side effects at 50–70%, +++++ = side effects at 70–100%, P = placebo level, ? = insufficient knowledge

Total sexual dysfunction is any dysfunction related to treatment

24.3.1 Antidepressants and Anxiolytics

Antidepressants and anxiolytics represent the most widely used psychotropic medications, especially since the introduction of selective serotonin reuptake inhibitors (SSRIs) over 30 years ago. They are used for a wide range of clinical indications (including depressive disorder, panic attacks, social phobia, generalized anxiety (GAD), obsessive-compulsive disorder, posttraumatic stress disorder, and eating disorders) and also "off-label" use (e.g., in personality disorders, sexual compulsivity). This large group of drugs includes monoamine (serotonin, dopamine, noradrenaline) reuptake inhibitors, monoamine-oxidase inhibitors, monoamine receptor modulators, as well as benzodiazepines and other sedatives. International, multicenter studies have shown that 27–65% of female and 26–57% of male patients with depression undergoing treatment with an SSRI or serotonin-noradrenaline reuptake inhibitor (SNRI) self-report either a worsening of preexisting difficulties or the emergence of new sexual difficulties in the early weeks of treatment [22, 23]. In a large meta-analysis by Serretti and Chiesa incorporating open-label, double-blind, cross-sectional, and retrospective investigations, they displayed that antidepressants have different impacts on sexual function [16]. They showed that some antidepressants did not differ significantly from placebo on the effect on all "treatment-emergent sexual dysfunction" (agomelatine, amineptine, bupropion, moclobemide, mirtazapine, and nefazodone). The same drugs did not differ significantly from placebo when analyzing the impact on particular phases of sexual response (desire, arousal, and orgasm). The only small exemptions were a slightly increased rate of desire dysfunction in patients treated with mirtazapine and arousal dysfunction on bupropion. SDs were highly prevalent in patients treated with SSRIs, SNRIs, and tricyclic antidepressants. However, substantial intragroup differences were shown (e.g., in the SSRI group, SD was much less common in patients treated with fluvoxamine or escitalopram as compared with sertraline or paroxetine). Antidepressants with a negative impact on sexuality have generally shown to be unfavorable for all the three phases of sexual functioning though in different proportions. As it can be seen from the table, the (negative or more neutral) influence on sexual functioning could be attributed to the specific mechanisms of action of particular ADs, as it was described in more detail in a previous section of this chapter. In general, pro-dopaminergic, and lacking the pro-serotonergic or anticholinergic activity drugs were less sexually disturbing. Overall, drugs with only serotonergic effects have more sexual side effects than drugs with dual action. These tendencies were confirmed, although less evident, in a more recent meta-analysis of 58 RCTs and 5 observational studies by Reichenpfader. They showed, that only minor differences were found in relation to sexual well-being between most ADs, with relative disadvantages for paroxetine and venlafaxine and relative advantages for bupropion [19]. More recent studies have shown a relatively low incidence of sexual dysfunctions related to the use of novel multimodal antidepressants such as vortioxetine and vilazodone in comparison with conventional SSRIs [21, 24, 25]. These new drugs combine serotonin transporter blockade with modulation of serotonin receptors (lower incidence of SD is attributed to the 5-HT_{1A} agonism and 5-HT_2 antagonism).

In the case of trazodone (partial 5-HT_{1A} agonist and 5-HT_2 and alpha-1 adrenergic receptor antagonist), a reduction of psychogenic erectile dysfunction was reported and the drug is considered as having an overall low risk of SD [26]. Some of the differences found in the meta-analysis may be due to differences in the number of studies, different study types, and the effect of the condition treated with the antidepressant.

Among medications that are used specifically for the treatment of anxiety disorders, benzodiazepines were not related to sexual dysfunctions in men (or may even provide a temporarily relief of performance anxiety), while they may increase the risk of sexual dysfunctions in females [27]. The sedative effect of benzodiazepines may inhibit the sexual responses such as desire, arousal, and orgasm. The long-term use of benzodiazepines is not recommended due to the risk of drug-dependency. Buspirone is an anxiolytic used in patients with generalized anxiety disorder (GAD) and was not related with risk of sexual dysfunctions and is even suggested as an add-on medication to overcome AD-induced sexual dysfunctions, but the recent evidence-based data remain insufficient to make this a recommendation. Pregabalin, which was found efficient in the treatment of GAD, is, unfortunately, related to the increased risk of erectile dysfunction, delayed ejaculation, and orgasmic dysfunction [18].

Most patients will experience that the side effects will disappear when the treatment is stopped. However, a yet underinvestigated and poorly understood condition is sexual dysfunction persisting for weeks, months, or even years after the termination of pro-serotonergic treatment, named the *post-serotonin reuptake inhibitor (or post-SSRI) sexual dysfunction—PSSD*. Common symptoms include genital anesthesia (decrease in sensation and numbness in genital area), pleasureless or weak orgasms, decreased sexual drive, erectile dysfunction, and premature ejaculation in males, and decreased vaginal lubrication and nipple sensitivity in females. The prevalence of PSSD is unknown and only case reports exist. The pathogenesis has not been established, but different mechanisms such as epigenetic gene expression theory, persisting 5-HT_{1A} receptor downregulation, neurohormonal changes, serotonin neurotoxicity, and alteration of receptor ion channel transduction are discussed [28–30]. Symptoms of persistent genital arousal disorder (PGAD) were also reported after the cessation of SSRI treatment (see Chap. 32 for more information on PGAD).

24.3.2 Antipsychotics and Mood Stabilizers

Antipsychotics (APs) are commonly used in the treatment of schizophrenia, delusional disorder, organic and substance-induced psychoses, as well as manic episodes in bipolar disorder (both in acute treatment and relapse prevention). It is estimated that sexual dysfunction affects from 38 to 86% of patients treated with antipsychotics. The most common complaints include orgasmic and erectile dysfunction in the short term and decreased sexual desire in the longer term [6]. Dopamine-blocking and hyperprolactinemia-inducing APs (including first

generation drugs like haloperidol and some second-generation drugs like risperidone, paliperidone, or amisulpride) are related to higher rates of desire and arousal dysfunction as compared with aripiprazole, quetiapine, olanzapine, and ziprasidone as indicated in a meta-analysis by Serretti and Chiesa [17]. Especially aripiprazole, which is a partial agonist of D_2 and 5-HT_{1A} receptors and antagonist of D_3 and 5-HT_{2A} receptors, has been reported to cause less sexual dysfunctions, decreasing hyperprolactinemia (and even sexual dysfunctions according to some minor studies) when added to other APs (for more data see reviews by Balon [31], Montejo et al. [6], Serretti and Chiesa [17], and also Table 24.1). One RCT indicated a lower rate of sexual dysfunctions in patients treated with a novel antipsychotic lurasidone (D_2 and 5-HT_{2A} antagonist and partial 5-HT_{1A} receptor agonist); however, this promising outcome needs confirmation, as the study investigated relatively low doses (20–60 mg) in the treatment of depressive patients with subthreshold hypomanic symptoms [32].

Lithium is a mood stabilizer regarded as a first-line treatment for relapse prevention in bipolar disorder, also used in the treatment of acute mania and recurrent depression. A relationship was found between lithium treatment and decreased sexual desire and satisfaction, as well as erectile dysfunction in approximately one third of patients [6, 33]. This estimation still makes lithium relatively safe for sexual functioning as compared with other commonly used mood stabilizers such as valproate or carbamazepine; however, the clinical data from the latter mainly are from patients with epilepsy as these drugs were first introduced in neurology as anticonvulsants. Valproate use was related to a decrease in sexual desire and anorgasmia in women, and it may cause an increase of androgen levels associated with menstrual disorders and polycystic ovarian syndrome; while in men it was related to erectile dysfunction, retrograde ejaculation, and decrease in testicular volume. Carbamazepine use was associated with multiple hormonal changes (including decreased estrogen, progesterone, testosterone, and increased SHBG), amenorrhea, decreased sexual desire, and erectile dysfunction in men. Limited data exist on gabapentin-induced decrease of sexual desire, ED, and orgasmic dysfunction or anejaculation. Oxcarbazepine was rarely associated with sexual dysfunction, although rarely ED and retrograde ejaculation were reported. Lamotrigine is rated as the safest mood stabilizer not related with sexual dysfunction [18, 34].

24.4 Clinical Assessment of Psychotropic Medication-Induced Sexual Dysfunction

Addressing treatment-emergent sexual dysfunction is an integral part of patient-centered and holistic approaches in any area of medicine, including psychiatry and sexology. Medication-related sexual side effects tend to be underestimated and underrecognized in clinical practice. In a recent study on 2163 male and female patients treated with the most common antidepressants, Montejo et al. found that 79% patients showed sexual dysfunction. Of these 64% showed moderate–severe sexual dysfunction, with no differences between men and women. In patients with

sexual dysfunction, the sexual problem was poorly tolerated by 22% of the patients, this being significantly higher in men than in women. Their analysis showed that treatment with a serotonergic antidepressant and having a severe clinical state of psychiatric illness were the factors associated with the highest likelihood of presenting with sexual dysfunction. Interestingly, sexual dysfunction was reported spontaneously by only 41% of the patients which emphasizes the need of the health care providers to initiate the conversation about sexual function and dysfunction as some patients will not. The most frequent way the psychiatrist dealt with the sexual problem was to switch to another antidepressant (34%) or to wait for spontaneous remission (33%) [35].

Sexual dysfunctions are listed among the most bothersome adverse events of psychopharmacological treatment together with symptoms like sedation, weight gain, or insomnia. For instance, decreased desire and orgasmic dysfunction were identified as 2 out of the 4 most common reasons for treatment noncompliance in patients with depression [36]. Therefore, clinical practitioners should screen patients suffering from mental disorders for sexual dysfunction related to both primary disease and the medication used for its management. Questionnaires such as Changes in Sexual Functioning Questionnaire and the Psychotropic-Related Sexual Dysfunction Questionnaire are relatively brief and helpful assessment tools that can be easily used within the clinical settings [37, 38]. Clinical practitioners should proactively interview patients on disease- and medication-related SD as they significantly influence the patient's quality of life and affect treatment *compliance*. Paying attention to important areas of general well-being, such as sexual identity, relationship, and sexual satisfaction, is a sign of treating the patient with respect and a proper basis for building the therapeutic alliance.

Patients' sexual complaints can be the worsening of preexisting problems or the development of new sexual dysfunction in previously sexually functional individuals. Recommendations for clinical assessment of sexual dysfunction in patients treated with psychotropic medications are summarized in Table 24.2 (see also Chaps. 10 and 11 for additional information on the assessment of sexual dysfunction).

24.5 Management of Sexual Side Effects of Psychotropic Medications

The first approach to managing sexual side effects of psychotropic medication can be to use drugs known to have fewer sexual side effects. However, the choice of psychotropic medication is a complex decision-making process determined by symptom profile, drug effectiveness, and tolerability (that should also account for the influence on sexual functioning). Pharmacotherapy of mental disorders is often necessary (even compulsory) because of the life-threatening influence of the illness (like suicidal or aggressive behavior), worsening of the condition, or severe deterioration of everyday functioning. It will always have first priority to treat the underlying condition, and the risk of sexual side effects should never justify not treating a

Table 24.2 Clinical assessment of sexual dysfunction (SD) in patients treated with psychotropic medications

SD as a clinical symptom of mental disorder	Sexual symptoms may represent a common pathophysiology of mental disorder. Therefore: • Ask if the patient was sexually functional before the current episode of mental disorder • Ask about the history of SDs in relation to a mental disorder (e.g., past depressive episodes) and if they remitted together with other psychiatric symptoms • Does a SD "fit" to the clinical picture of a mental disorder? (e.g., lack of sexual interests or sexual anhedonia in depressive disorder or erectile dysfunction in a patient with anxiety disorder)
SD as a part of psychological and/or sociocultural burden of mental disorder	Mental health conditions, especially the chronic ones and with related deterioration in social functioning, and, together with social stigma of being "mentally ill," may complicate intimate relationships • Evaluate if SD may result from a rejection by sexual partner or anxiety related to social withdrawal • How does being "mentally ill" influence patient's self-esteem and initiation of sexual encounters?
SD as a part of somatic burden of mental disorder	SMI are related to a significant burden of somatic illness (including CVD, metabolic, and hormonal changes) • Evaluate how these may affect sexual functioning • Consider additional lab tests (e.g., fasting glucose, lipids, hormones) to assess the possible influence of somatic factors • Consider referral to other specialist if patient needs specialist treatment of a comorbid somatic disease (cardiologist, urologist, gynecologist). This also includes changing drugs that may interfere with sexual functioning
SD as medication-related adverse effect	Possible causal relationship between psychopharmacotherapy and SD should be carefully evaluated • Is the onset of SD related with the occurrence of clinical symptoms of mental disorder or rather the initiation of its treatment? • Is the particular medication commonly related to SDs? • Does the SD correspond with the biochemical mechanism of a medication (e.g., prolonged IELT during SSRI medication or sexual anhedonia when taking a DA antagonist)? • Is the occurrence/exacerbation of SD related to increasing the dose of psychotropic medication or adding a new drug (polytherapy)? • Was SD present during previous medications with the same or similar drug?

mental health problem. But, if possible, one should include sexual side effects in the overall decision-making process when initiating treatment. Often patients with a high load of disease burden are not concerned about sexual side effects in the acute phase but by addressing the topic when initiating the treatment; the patients know they can come back and discuss sexual issues when it becomes relevant for them, and changing medication can then be considered, though changing the drug that

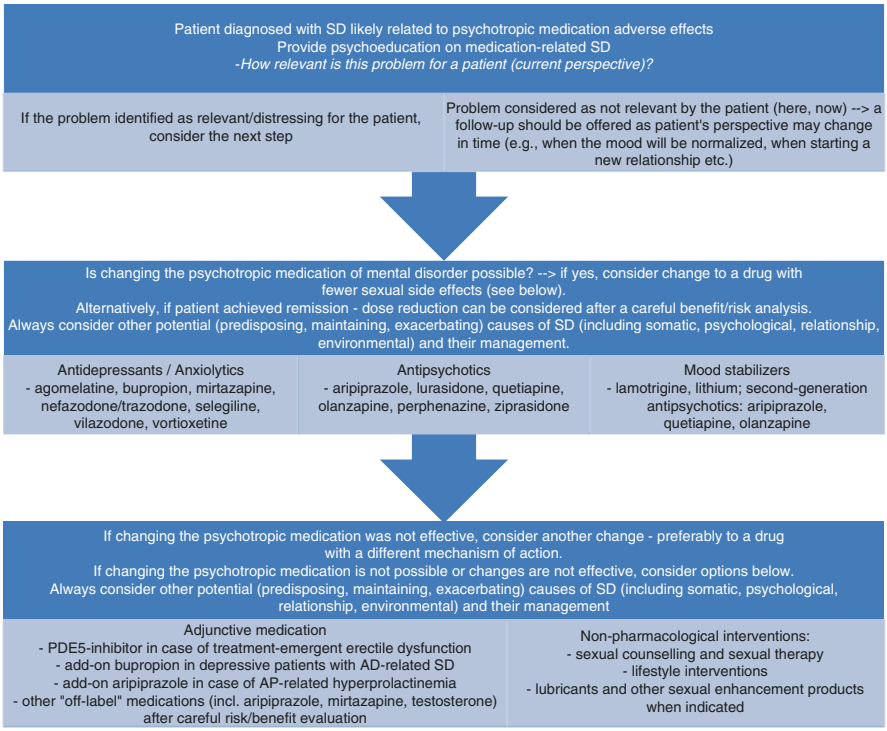

Fig. 24.1 Recommendations summary on the management of psychotropic medication-induced sexual dysfunction

once led to significant symptomatic improvement may not always be possible. If possible, the choice of treatment can be guided by the knowledge about sexual side effects as displayed in Table 24.1.

A variety of options can be implemented for the management of psychotropic medication-related sexual dysfunctions. However, the evidence-based data on the efficacy of these interventions is very limited. Based on some relevant research data and our own clinical experience with treating mentally ill patients suffering from SD, we will critically review these options and summarize our recommendations in Fig. 24.1.

24.5.1 Psychotropic Medication Change

If sexual side effects once occurred during the psychopharmacological treatment, it is rather unlikely that sexual function will improve without changing the drug or dose adjustment. According to the meta-analysis by Serretti and Chiesa, only 15% of patients with antidepressant-emergent SD seem to obtain a meaningful improvement between 3 and 6 months since the onset of the medication and up to 30% afterward [16]. But it may sometimes justify a sequential treatment when a first

medication is used during the acute phase of the illness (e.g., acute psychosis), modified after stabilization to another drug that is favorable in terms of tolerance, quality of life, and therefore leads to better treatment compliance. It is important to inform the patient about possible side effects including sexual side effects and to address possible future changes in the therapy in an open discussion with a patient to sustain a better adherence to the medication before it can be changed to a better tolerated option.

If a medication change is considered reasonable (after appropriate risk/benefit assessment), then the choice of a drug with lower risk of SD is preferred:

Antidepressants/anxiolytics Preferred are agomelatine, bupropion, buspirone, mirtazapine, nefazodone/trazodone, selegiline, vilazodone, and vortioxetine. SSRIs should be avoided (in case this is the drug of choice, then escitalopram or fluvoxamine may be considered). SNRIs and tricyclic antidepressants should be avoided (if indicated—consider duloxetine). Pregabalin and benzodiazepines are also not recommended.

Antipsychotics Second-generation antipsychotics are less likely prolactin-increasing and are preferred, especially aripiprazole (first-line option), lurasidone, quetiapine, olanzapine, and ziprasidone. In case of metabolic risk factors, quetiapine and olanzapine should be avoided. From the first-generation antipsychotics perphenazine is associated with the lowest rate of SDs.

Mood stabilizers Lamotrigine and lithium are preferred; second-generation antipsychotics: aripiprazole, quetiapine, and olanzapine (metabolic restrictions—as above).

24.5.2 Dose Adjustment

The severity of psychopharmacological-induced sexual dysfunction is often dose dependent. *Dose reduction* may therefore alleviate adverse sexual effects and has been shown as a common strategy in patients treated with antidepressants [39]. Another strategy is a "drug holiday," when chronically administered medication is interrupted for one or a few days when sexual activity is anticipated. However, successful treatment outcome in psychiatry commonly requires chronic and regular drug intake and a dose reduction or intermittent medication may lead to a relapse of disease, with its complex medical, psychological, and socioeconomic consequences. Drug reduction to a minimum-effective dose or short-time interruption may be considered in patients with stable remission on maintenance treatment, with low risk of relapse and low risk of relapse-related danger (like suicidal attempts, aggressive behavior, functional deterioration). In the case of a "drug holiday" option, occurrence of withdrawal symptoms must be taken into account.

In some cases it can be beneficial to discuss when the patient takes the medication. Guided by time to maximal concentration and half-life of the drug it may help

to *change the timing* of intake. If for an example the concentration is highest in the evening and the drug also has sedation as a side effect, and the patient always has sex in the evening, it may help to take the drug after having sex. It is important that the decisions on psychotropic medication modifications should always be made in cooperation with a psychiatrist. Sometimes the patients will have some previous experience or even try to change it themselves—which makes it even more important that the physician addresses the topic.

24.5.3 Adjunctive Medication

A number of "remedies" are proposed in the literature for the improvement of sexual functioning in cases when modification of psychotropic medication is not possible or helpful. Proposed mechanisms of action of such add-on treatments include blockade of 5-HT_2 receptors, increases in peripheral (genitourinary) serotonergic tone (e.g., cyproheptadine), catecholaminergic agents aimed to override serotonergic effects (e.g., bupropion, stimulants), or stimulation of the nitric oxide pathway (e.g., PDE-5-inhibitors) [4]. However, the evidence-based rationale for the use of most of these agents remains very scarce. Only a few randomized controlled studies have shown efficacy of add-on medications: PDE-5 inhibitors sildenafil, lodenafil, or tadalafil in restoring erectile function adversely affected by antidepressants or antipsychotics. One study found a beneficial effect of the adjunctive aripiprazole to antipsychotic treatment in women. For women with antidepressant-induced sexual dysfunction the augmentation by bupropion 300 mg daily improved side effects but not 150 mg [40–42]. In open-label studies, adjunctive aripiprazole was found to reduce hyperprolactinemia and SD induced by APs; however, the outcomes were less favorable compared to aripiprazole monotherapy [6, 40, 43, 44]. In one double-blind study, augmentation of ADs with aripiprazole was related with improved sexual interest and satisfaction in depressed women and was independent from the improvement in depressive symptoms [45]. In one small RCT, add-on mirtazapine to first-generation antipsychotics was superior to placebo in improving orgasmic but no other sexual function in patients with schizophrenia or schizoaffective disorder [46]. Another RCT has shown improvement of sexual function in depressed men taking serotonergic ADs treated additionally with testosterone gel [47]. The use of these medications may be limited and considered "off-label" when it is not in line with registered indications. Some open-label studies investigated the effect of nutraceuticals and herbal products, but the methodology and evidence are too weak to recommend these as efficient strategies in overcoming psychotropic medication-induced SD.

24.5.4 Complementary Non-pharmacological Interventions

Counseling and sexual therapy Patients should be informed about the possible impact of mental illness and its medication on sexuality; an individual assessment of the probable causes of sexual difficulties should be performed and risk/benefit of

different management strategies explained. It is important to discuss the *partners' roles*, *changing sexual scripts* (e.g., focusing on non-penetrative sex or more intensive stimulation to achieve sexual pleasure and orgasm), and exercises like *sensate focus* may improve the quality of sexual experiences (see Chap. 12 for more information on counseling and psychotherapy). A "positive reinforcement loop" with adding more quality to sexual encounters may further lead to the increase of sexual desire and relationship satisfaction.

Sexual enhancement products and sexual toys A wide selection of *lubricants* may be used if vaginal dryness is an issue (some of them also used as sexual enhancers, e.g., with different tastes or smells for foreplay, improving sensations) or more intense stimulation with the use of a *vibrator* for arousal or orgasm dysfunction.

Lifestyle changes Healthy *diet* and *physical activity* is commonly linked to better overall health and sexual functioning. It may also help to overcome medication-induced SD. In a randomized, crossover study of 52 women with AD-related SD, physical exercise immediately prior to sexual activity was found to improve sexual desire while scheduling regular sexual activity improved orgasm function [48].

In case of PSSD, no specific treatment has been introduced. The use of serotonergic antagonists, dopaminergic agonists, as well as low-power laser irradiation in the case of penile anesthesia were described but the level of evidence of their efficacy is still very low [28].

Case Reports 1 and 2

Jack is a 36-year-old engineer who runs his own company. He is very dedicated to the job and feels responsible for his employees. His 10-year younger fiancée describes him as a hardworking perfectionist, highly active, and very protective. They enjoyed a lot of traveling to distant areas where Jack could at least get away from his work for 2 or 3 weeks. When there was a crisis on the financial market, the income of his company went down so for the first time he could not pay timely and full salaries to his staff. He did not want to dismiss anybody and felt like a failure. Gradually his mood went down, he lost his interests, became apathetic, and constantly tired.

Tom is 26-year-old student who has suffered from recurrent depression for 9 years. During each of three relapses he felt extremely sad, helpless, and anxious, experienced severe difficulties in learning, and avoided meeting people. Occasionally he had suicidal thoughts but never attempted a suicide. Moreover, Tom experiences a lifelong premature ejaculation that decreased his and his female partner's sexual satisfaction in a former and current relationship.

Both the patients consulted a psychiatrist and were prescribed an SSRI. In the case of Jack, the mood improved moderately after 3 weeks of starting with the medication, but soon he realized his sexual desire decreased (it was even

lower than during the most depressed mood) and he could not get a proper erection during the intercourse attempts. This was unexpected (and the psychiatrist didn't mention that such an adverse effect may occur) and further made him feel like a failure to his fiancée. Because of that he decided to stop the medication after 2 months. After 3 weeks he felt depressed again and visited another psychiatrist. This time he was prescribed a DA- and NA-reuptake inhibitor (bupropion), gradually increased to 300 mg and advised to start psychotherapy. The patient fully recovered during the next 6 weeks and continued with the medication for the next 9 months with a good compliance and no sexual problems.

In contrast, Tom was satisfied with the initial use of citalopram. It not only decreased his anxiety and improved his mood and overall functioning, but also increased his ejaculatory latency time and satisfaction in his sexual relationship (as a "side effect" of an increased serotonergic activity). After remitting from depressive symptoms he decided to continue the treatment chronically as it prevented the recurrence of depression and maintained good control of his sexual performance.

Case Report 3

Jane is a 32-year-old woman, married, and has two children. She is successfully running a restaurant and cooperating with her husband in a family business. Both are physically fit, attractive, and attach great importance to their appearance and sexual activity. Jane suffers from recurrent depression. She has had one mild episode, which was untreated, in her early twenties and two more severe ones 5 and 2 years ago, lasting from 6 to 8 months. During the latter episodes, she barely went out of home, lacked energy, lost interests, felt anhedonic with no sexual urge at all. She responded well to antidepressants but needed relatively high doses to get better (225 mg of venlafaxine in the first episode and 200 mg of sertraline plus 30 mg of mianserin in the second one). While her mood and general activity were improving, she would continue to feel no interest in sexual activity and was not responsive to sexual stimuli when taking the medications. This caused great tension in the relationship and the husband interpreted patient's sexual reluctance as emotional disengagement. They did not associate her lack of sexual interest with the medications nor were they informed by the psychiatrist about this kind of possible side effect. Sexual functioning was gradually improved after termination of the pharmacotherapy and so were the marital relations. After a year of relative mood stability and 6 months free of any medications Jane developed her first manic episode. With rapidly increasing mood and drive, she left home, had an affair with another man, took expensive trips, spent significant amount of money on shopping, and invested a large amount of money in a new business she never realized. She was finally admitted to a psychiatric

ward and was treated intensively with quetiapine, risperidone, and valproate. After 4 weeks she was discharged from the hospital. Two months later she visited a psychiatrist and sexual medicine specialist upon recommendation and complained that she did not feel any interest in sexual activity nor did she experience sexual pleasure. Moreover, in these 3 months she gained over 20 kg weight, acquired amenorrhea, and hair loss that seriously disturbed her sense of femininity and attractiveness. Marital problems also worsened due to all the conflicts and losses from the manic episode, the affair she had, as well as the decline of sexual relationship. At that time, the patient presented with the beginning of depressive symptoms again and started regularly using alcohol that was never the case before.

Intervention: A psychoeducation on the influence of mood disorders on sexuality, behavior, and medication-related adverse effects was provided to the patient and her husband. Pharmacotherapy was modified gradually with quetiapine, risperidone, and valproate discontinuation, while aripiprazole and lithium were introduced. New medication was well tolerated and Jane lost 15 kg weight during the next 5 months, started feeling sexual desire again, improved her self-image, and also quit drinking alcohol. She was referred to couples therapy with her husband, and they restored their sexual activity, with better sexual and overall communication. Initially, Jane had ambivalent feelings toward her husband and regretted they did not begin with couple's therapy a few years ago but 1 year after she could say that their relationship improved a lot. She was compliant with the medication and remained in full clinical remission during the next 3 years. It seems that the pharmacotherapy adjustment was effective both for the mental well-being and restoration of sexual functioning but a more complex intervention including psychoeducation and marital therapy was crucial for an overall improvement the patient's well-being and both sexual and relationship satisfaction in the couple.

24.6 Key Messages

- Psychopharmacotherapy represents a first-line treatment in severe mental illnesses; however, it is often accompanied by adverse side effects that may seriously impact patients' sexual function and their adherence to the treatment.
- Psychotropic medication-related sexual side effects may be immediate or deferent, commonly persisting as long as the medication is being continued, and occasionally after treatment discontinuation.
- Common mechanisms behind psychotropic medication-induced SD include increases in serotonergic transmission and dopaminergic inhibition which directly influence the sexual response, as well as other adverse effects (hormonal, metabolic, neurological, etc.) that indirectly affect sexual functioning.
- Drugs with alternative mechanisms of action (e.g., dopaminergic partial agonists, serotonergic partial antagonists, melatonergic agonists) are related to fewer sexual side effects.

- Clinicians should be aware of the impact of psychotropic medication on sexual well-being and ask their patients directly about drug-induced SD.
- Differential diagnosis should include the effect of the illness on the biological, psychological, and social constituents of sexual functioning.
- When possible, drugs with a lower risk of sexual adverse effects should be preferred in patients who may be concerned with such a complication.
- Management of psychopharmacotherapy-induced SD includes medication switch or dose adjustment (if possible), add-on medication, or different non-pharmacological interventions that may help in overcoming sexual dysfunction or increase sexual satisfaction.

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Sexual Violence: How to Deal with It in Psychiatry

25

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25.1 Introduction

Sexual violence is a very significant issue for men, women, and children throughout the world. The consequences of experiencing sexual violence are alarming and devastating for victims as well as for society. Studies have shown a positive association between being a victim of sexual violence and the risk of developing a wide range of behavioral problems (e.g., suicidal behavior [1]), psychological problems (e.g., depression, anxiety disorders, drug dependence [2]), and sexual problems (e.g., sexual pain [3]). Additionally, the prevalence of post-traumatic stress disorder among women who have experienced sexual assault is about 50% [4]. The consequences of sexualised violence for survivors of such an experience are described in more detail in Chap. 26.

What is sexual violence—how is it defined? Following the policies of the World Health Organization, sexual violence is defined as "any sexual act, attempt to obtain a sexual act, unwanted sexual comments or advances, or acts to traffic, or otherwise directed, against a person's sexuality using coercion, by any person regardless of their relationship to the victim, in any setting, including but not limited to home and work" ([5], p. 149). It has been estimated that 7.2% of women worldwide [6] have experienced sexual violence at some point in their life, while another study estimates 8–31% of girls and 3–17% of boys [7] have experienced

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sexual violence. Krahé et al. (2015) [8] showed that between 9.7 and 52.2% of females and 10.1 and 55.8% of males from ten different European countries reported having experienced at least one incident of sexual victimization since the age of consent. Concerning the number of male adult victims of sexual violence, Allroggen et al. (2016) [9] report that 0.6% of men had experienced sexual violence within the last 12 months. But since the topic of sexual violence against men remains a taboo issue, little to no research concerning adult male victims of sexual violence can be found, and we can only estimate the number of victims in the so-called dark field. However, numbers estimating the prevalence of sexual violence are various and can only be estimated.

There have been several attempts to categorize sexual violence. One of the most common categorizations is the division between sexual violence against children and sexual violence against adults. The literature reviewed in this chapter points to the validity of this differentiation concerning clinical characteristics.

25.2 Clinical Background and Psychiatric History

Even though criminal behavior and sexual crime in particular do not classify as psychiatric diagnoses, it is noticeable and well established that sexual offenders reveal a high prevalence of psychiatric diseases [10–13], which in turn can represent risk factors for offending [14]. However, this by no means implies a causal or directional relationship between being mentally ill and also sexually violent as being mentally ill might also be a risk factor for experiencing sexual violence [15, 16]. Furthermore, the so-called "abused abuser" theory elaborates the risk that victims of sexual violence may become future perpetrators. Even though this theory is common, it must be taken into a more differentiated consideration with regard to current data [17]. Leach et al. (2016) [17] could falsify this theory be using a prospective cohort study. Nevertheless, being a victim of sexual violence, especially at a young age has devastating effects on mental health and may therefore be a risk factor for future offenses [1–3]. Therefore, a closer look at clinical characteristics of sexual offenders is important for every practitioner and may provide valuable information for treatment planning and eventually to help reduce the risk of (re)offending. As the number of patients with problematic sexual behavior—which includes all patients who have committed a sexual crime, not only those with a paraphilic preference—in regular treatment might be underestimated, it is important to include questions about sexual behavior in every psychological and psychiatric treatment. It is well known that sexual problems are often not mentioned in therapy [18] even though they have a significant impact on wellbeing and quality of life. Addressing questions about sexuality and sexual behavior might not only help the practitioner to clarify whether or not patients have deviant fantasies but also help meet therapeutic needs and therefore improve treatment quality and life quality of the patient.

Several studies have shown that sexual violence against adults is mainly committed by males [19–21]. However, as discussed before it is highly probable that the number of female offenders is higher than officially reported. Therefore,

clinical characteristics of sexual offenders might be incomplete for females. Another difficulty of research in this field is the bias of just including detected sexual offenders into analyses. Since only 5% of acts of sexual violence against adults are reported to the police and 20% of those crimes are convicted [22], we do not know whether or not findings are associated with an imprison effect. Further research that includes both detected and undetected sexual offenders is crucial to validate risk factors that are important for preventive treatment to avoid sexual violence.

The known psychiatric characteristics of sexual offenders illustrate how challenging the work with real or potential sexual offenders can be. Sexual offenders themselves suffer from high numbers of psychiatric diseases, especially with respect to mood disorders (7–44%), personality disorders (27–76%), and alcohol and drug dependence (19–67%) [10–13]. In their longitudinal cohort study of 47.326 prisoners, Chang et al. (2015) [14] showed that up to 20% of violent reoffending in men was attributable to a diagnosed psychiatric disorder. Since certain psychiatric disorders are associated with an increased risk for violent reoffending (adjusted HR: 1.63, 95% CI: 1.57–1.70) [14], it is crucial to not only focus on the crime per se but also on psychiatric treatment for sexual offenders.

Child sexual offending By comparing child sexual offenders with rapists, Eher et al. (2010) [10] have shown that child sexual offenders were more often diagnosed with a Cluster C personality disorder (i.e., dependent personality disorder, obsessive-compulsive personality disorder). But since this study did not differentiate between pedophilic and non-pedophilic child sexual offenders, it is difficult to interpret the results concerning whether or not they are related to pedophilia and/or offense status. Additionally, rapists more often fulfilled the criteria of Cluster B personality disorders (i.e., borderline personality disorder, antisocial disorder) [10].

Case Report

Being an outstanding musical talent, Joseph had always received encouragement concerning his musical development from his earliest years. But with regard to emotional needs and caring he was deprived from parental love and reassurance. Since childhood, Joseph suffered from panic attacks and depression. His first masturbation fantasies at the age of 12 years involved peripubertal girls. After his first marriage a custody battle concerning his son arose. With his second wife he had three daughters. Joseph admits that he has several sexual contacts outside of his marriage. At the age of 34 he describes his first sexual arousal to children after contact with his niece. In the following several problematic interactions with children and pedosexual fantasies proceeded, leading to an official warning for sexualized language in front of children while he was working as a teacher. Ten years from his first experience of sexual arousal toward his niece, Joseph puts his hand in the trousers of a young female piano student and touched her genitals. Currently Joseph

receives psychotherapy in order to understand how his preference for children developed and how he can change and control his behavior toward children and thus prevent further offenses. Following the Berlin Dissexuality Therapy Program (BEDIT), he participates in a group therapy that consists of 12 modules covering topics such as motivational work, emotion regulation, coping strategies, problem-solving, and protective measures by using cognitive behavioral therapy [23].

However, since pedophilia and child sexual offending are distinct phenomena, they must be considered separately. Having a pedophilic preference does not mean that the person is automatically a child sexual offender. Research shows that there is a clear difference between people with pedophilic preference and people who commit sexual offenses against children [23–25]. Furthermore, it should be taken into consideration that not all child sexual offenders have a pedophilic preference. Therefore, when trying to identify the differences, Table 25.1 could be helpful.

So far there is one important study on phenomenological characteristics published by Gerwinn et al. (2018) [23] that differentiates clearly between offense status and sexual preference. The findings by Eher et al. (2010) [10] indicate that there are high rates of cluster B and cluster C personality disorders, and sexual dysfunctions among the pedophilic and offender group were also found in Gerwinn et al.'s sample (2018) [23]. Gerwinn et al. (2018) [23] findings showed higher rates of sexual dysfunctions and cluster B and cluster C personality disorders among the pedophilic as well as in both offender groups (pedophile and non-pedophile). Additionally, pedophilic/both offender groups reported significantly higher levels of depression, anxiety (prevalence doubled) and discomfort in tense interpersonal settings compared to controls [23]. Furthermore, offending pedophiles reported more familial risk factors than non-offending pedophiles (e.g., maternal and paternal criminal history, emotional abuse and neglect, and physical abuse) and did also report lower rates of internalizing behaviors (e.g., mood disorders/cluster C personality disorders) and higher rates of externalizing behaviors (e.g., higher lifetime rates of psychoactive substance use disorders, cluster B personality disorders, and childhood conduct disorders) than non-offending pedophiles [23]. However, most of the risk factors for child sexual offending (CSO) were higher in non-pedophilic than pedophilic offenders. By summarizing the results of Gerwinn et al. (2018) [23], a combination of internal and external, psychological and developmental risk factors can be found in both pedophilic men with and without a history of CSO as well as in non-pedophile child sexual offenders.

Table 25.1 Overview about possible groups of child sexual offenders

	Pedophilic preference	No pedophilic preference
Offending	*Offending pedophiles*	*Offending without pedophilic preference*
Non-offending	*Non-offending pedophiles*	*Non-offending without pedophilic preference*

25.3 Risk Factors and Motives in Sexual Violence

Why do perpetrators offend? Risk factors and motives of sexual violence are as varied as every individual offender. But there are some points that are outstanding and highlighted by research as well as by self-reports of offenders.

One theory for sexual offending is the Good Lives Model from Ward (2002) [26]. It assumes that all humans seek out primary goods. These goods are life (including healthy living and functioning), knowledge (how well informed one feels about things that are important to oneself), excellence in play (hobbies and recreational pursuits), excellence in work (including mastery experiences), excellence in agency (autonomy, power, and self-directedness), inner peace (freedom from emotional turmoil and stress), relatedness (including intimate, romantic, and familial relationships), community (connection to wider social groups), spirituality (in the broad sense of finding meaning and purpose in life), pleasure (feeling good in the here and now), and creativity (expressing oneself in different ways). And while all human beings value these goods, the weighting and priority of them differs between individuals. Following Ward (2002) [26] sexual offenders (rapists as well as child sexual offenders) do not know how to anticipate these goods through prosocial means and hence follow a criminal path to attain them. This theory of motives for sexual offending leads to a new model of treatment for sexual offenders focusing more on positive aspects and enabling offenders to attain these goods in a prosocial way.

Case Report

Case Report Jacob F. "I didn't realize that I harmed her"

Mr. F is a 30-year-old artist from a large German city. Defining himself as an anarchist and being politically active, he always focused on human rights and feminism. Considering his own sexuality, he never thought that his sexual behavior might be problematic. After being publicly accused by one of his ex-girlfriends and the following media exposure that ruined his career, he seeks help in the "I CAN CHANGE" Project in Hannover. He describes his sexual behavior as "normal" and admits that he always thought nothing was wrong despite his girlfriend crying multiple times during sex. Additionally, he enjoys slapping her in the face without her consent while having sex.

Mr. F. defines his family as unemotional. Problems and difficulties during childhood were never discussed, and sexual education did only occur in school. His search for identity and questions about himself were never part of conversations with his parents. Being asked about important bonds he only mentions his political activism and explains that this is the only way of not being disappointed. He describes the strong wish to understand his sexual behavior and the reason why he never realized that he was harming his sexual partners. Since the accusation by his ex-girlfriend, he is highly motivated to learn about sexual consent and reads multiple books about the topic. However, during therapy it is difficult for him to address his own difficulties and leaving the "theoretical" frame for a more in-depth view of his own behaviors, emotions, and desires.

Other concepts of motives for sexual offenses exist. Mann and Hollin (2007) [27] investigated sexual offenders (rapists and child sexual offenders) concerning their individual motives to offend. While about one third of rapists and one quarter of child molesters did not or could not give any explanation for the assault, rapists attributed their offending most frequently to grievance, impulsivity, or sexual need. Child molesters attributed their offending mostly in terms of sexual gratification, the desire to alleviate a negative emotional state, or a wish to experience intimacy. The attribution of sexual violence to sexual gratification is coherent especially considering the fact that so-called exclusive pedophiles (men and women who are exclusively only sexually aroused by prepubertal children) have difficulties experiencing sexual gratification otherwise.

The concept of "situational and personality offenders" [28] takes into consideration that motives for sexual offenses may either depend on personality traits or specific situational factors. Personality offenders have traits that are linked to risk factors of sexual violence (e.g., having a pedophilic sexual preference, having an antisocial personality structure, or having paradigms that enhance sexual violence). On the other hand, situational offenders are confronted with a highly specific and often unlikely situation. Situational offenders do not or only slightly have traits that enable risks and are mostly feeling obliged to norms and laws. Therefore, they are indeed impressed by punishment and are able to change their behavior more easily.

In conclusion, the practitioner should follow the following points during the diagnostic assessment of a subject who is at risk of sexually offending or reoffending. According to the biopsychosocial model, sexual offending is caused by nature and nurture of the individual and includes genetic predisposition as well as environmental circumstances.

Risk factors for sexual violence are differentiated into stable and dynamic risk factors. Stable risk factors are unchangeable and include factors such as gender, age at the first offense, and gender of the victim. Those factors cannot be changed by therapeutic intervention. Dynamic risk factors that should be focused on include (see also Mann, Hanson and Thornton, 2010 [29]):

- Sexual preoccupation:
  - *An intense interest in sex dominating all psychological functioning where sex is not associated with romantic love or intense attraction to a specific person but used as a way of defining the self, or self-medication.*
  - *Typically associated with a feeling of sexual dissatisfaction even though there is an engaging in high levels of (mostly impersonal) sexual behavior* [30].
  - *Does overlap with having sexual compulsions, sexual addiction and hypersexuality* [31, 32].
  - *This behavior significantly predicts sexual, violent, and general recidivism* [29, 33, 34].
- Offense-supportive attitudes:
  - *Attitudes and beliefs that justify or excuse sexual offending.*
  - *Typical offense-supportive attitudes for child molesters are that children can enjoy sex, that adult-child sex is harmless, or that children can be sexually provocative* [29, 35–38].

  - *For rapists that rape is justified, harmless or even enjoyable for the woman* [29, 35–38].
  - *It has been shown that attitudes are a relevant risk factor for condoning sexual offenses in others or in general, but not when used to justify the own specific crime of the offender* [39].
- Emotional congruence with children:
  - *The feeling that relationships with children are more satisfying and children are easier to relate to.*
  - *Offenders might describe feeling more like a child themselves and are "in love" with child victims.*
  - *Suggest that the relationship is reciprocal* [40].
- Lack of emotionally intimate relationships with adults:
  - *Offenders not having an intimate relationship at all.*
  - *Those having a conflictive and/or unfaithful relationship.*
  - *Both are at a higher risk of reoffending* [29].

Other important risk factors that are also known from "normal" psychiatric practice include lifestyle impulsivity, poor cognitive problem-solving skills, self-regulation problems, resistance to rules and supervision, hostility, and negative social influences [29].

Case Report

Mr. K. is a 35-year-old man who worked as a bartender in a music club. Being athletic and taking care of his appearance, he never had difficulties to find sexual adventures and sexual partners. Intoxication with drugs and alcohol not only while having sex but on a daily basis was very common for him. One night after getting drunk and starting a fight with a stranger, Mr. K. left the music club where he was working. On his way home he fell asleep on the train. After he woke up, he realized that he missed his station and left the train. In the middle of the night, still intoxicated, a young woman attracted his attention and he decided to pick her up. She rejected him and tried to walk away. Being frustrated by the rejection, he started following her, grabbed her, and raped her. He was neither distracted by her fear nor by her screams. After raping her, he took her bag and threw away her phone and ID card. Mr. K. was caught by the police the same night and has been in prison ever since. He is unable to describe why he raped the woman and focuses on the status of "being drunk" as an excuse. In prison he is now learning to communicate his needs and cope with disappointment and frustration as well as learning to use coping strategies other than drugs and alcohol. Mr. K fulfills the criteria of some of the most important dynamic risk factors such as sexual preoccupation, lifestyle impulsivity, poor cognitive problem-solving, and self-regulation problems. During therapy it is important to focus on those risk factors to minimize potential (re)offending.

25.4 Treatment Options

25.4.1 Counseling and Psychotherapy

Oftentimes convicted sexual offenders do not receive or are not willing to access psychotherapeutic treatment. Additionally, treatment programs for sexual offenders often focus on the crime and not on accompanying psychiatric disorders. For that reason, it is clear that tailored treatment programs are indispensable, particularly for sexual offenders suffering from psychiatric disorders. Nevertheless, sexual offenders are a heterogenous group [41] that not only differ in the variety of their crimes but also in their behavior and needs [42]. Those aspects should also be taken into consideration when working with sexual offenders. Over the years, multiple treatment approaches for sex offenders have been developed. An overview can be found at Gibbels, Kneer, Hartmann, and Krueger (2019) [43]. Treatment programs range from cognitive behavioral programs such as sex offender treatment program (SOTP) and the risk-need-responsivity (RNR) model, which focuses on providing tailored treatment for high-risk and low-risk offenders, to psychodynamic models [43]. Additionally, there are various preventive programs, for example, the project "Stop it now!" that provides information, advice, and guidance to anyone concerned about child sexual abuse in the United Kingdom, Ireland, and the Netherlands [44]. There are many treatment options and programs for those wanting to work with (potential) sexual offenders. They vary from cognitive behavioral programs to psychodynamic models. The mentioned "Good Lives Model" [26] does also enhance a therapeutic frame that offers help by enabling participants to fulfill their needs within a socially acceptable frame (good lives model). Table 25.2 gives an overview of some of the most important treatment programs and their effectiveness that might be helpful for practitioners. It is nearly impossible to describe all of the programs that exist. For a more elaborated overview, the reader is kindly asked to look at Gibbels et al. (2019) [43].

One of the first preventive programs that offers therapy to pedophiles and undetected pedophile offenders is the well-established German "Don't Offend" project. In addition to that a new project called "I CAN CHANGE" at Hannover Medical School, Germany, offers treatment for people at risk of sexually offending against adults.

Prevention Project I CAN CHANGE

Hannover Medical School has recently introduced the "I CAN CHANGE" program (www.praevention-sexueller-gewalt.de) that is focusing on people who have not yet been convicted of a sexual crime against adults but fear they could commit such a crime. Participants fantasizing about sexual violent behavior against adults or those who have already sexually offended but are (yet) undetected receive a careful diagnostic assessment, psychological treatment, medical care, and—if necessary—couple therapy. Therapy focuses on

Table 25.2 Effectiveness of offender treatment programs

	Risk-need-responsivity program (RNR) [45]	Cognitive behavioral programs	Self-regulation model of offending (SRM)	Good Lives Model (GLM)	Psychodynamic treatment
Key points of the program	Treatment is based on three main principles: (1) estimation of the risk of reoffending after the first offense (risk), (2) assessment and targeting of criminogenic features (need) and tailoring of treatment to the offender's learning style, and (3) motivation and abilities (responsivity) [43]	Uses cognitive behavioral interventions with two aims: (1) restructuring the distorted or erroneous cognitions of the individual and (2) trying to help him or her to learn new, more adaptive cognitive skills [43]	Treatment program focuses on internal and external processes that allow individuals to engage in goal-directed behavior. The variability of offense-related goals is taken into account. It differentiates among four pathways which may differ between individual offenders and within an individual offender at various points of the progression to sexual offending. The model includes individual's goals with respect to sexual offending (approach vs. avoidance) as well as the individual's attempts to achieve the goal (passive vs. active) [43]	Focuses on primary "goods" (certain states of mind, personal characteristics, and experiences), It has a highlight on its strengths-based approach and emphasis on the personal growth and development of participants [43]	Modern manualized therapies, such as transference-focused psychotherapy (TFP) as well as mentalization-based therapy (MBT), are gaining acceptance and are now used in diverse German forensic hospitals [43]
Standardized evaluation possible?	More a concept of treatment than a treatment program, but it is possible to evaluate how risk, need, and responsivity interact with treatment outcome	Yes, standardized manuals such as BPS, SOTEP, and RPP	Yes, different pathways have been associated with static and dynamic risk factors, offense specialization, and psychopathy. Different pathways have been found to be linked differently with recidivism [43]	Framework for work with offenders, standardized treatment programs should be used to compare the effect of GLM approach	Yes, modern manualized therapeutic concepts such as the transference-focused psychotherapy (TFP) and mentalization-based therapy (MBT)

(continued)

Table 25.2 (continued)

	Risk-need-responsivity program (RNR) [45]	Cognitive behavioral programs	Self-regulation model of offending (SRM)	Good Lives Model (GLM)	Psychodynamic treatment
	• Perpetrators with a high risk of reoffending are not only more likely to noncompletion of the programs but are also the ones benefitting the most [46] • Risk related in-treatment improvements are related to reductions in post-treatment recidivism [38, 46–48]	• BPS and the SOTEP seem to be good treatment options for sexual offenders [49–52] • SOTEP: Marques et al. (2005) [53] were not able to find differences in recidivism between treated and untreated offenders after an 8-year follow-up **But**: offenders with a high risk of reoffending had a lower risk of reoffending than high-risk offenders in control groups [53]		• Did not show better results than RNR [45] • Facilitators and program participants reported the Good Lives approach module's impact in a positive, future-focused manner, whereas participants of the RNR program did not report such improvements (Harkins et al., 2012) [54]	• Sample of 44 addictive offenders in a German forensic hospital, TFP-patients ($n = 24$, treatment >18 months) showed positive changes in personality dimensional scores and global psychopathology indices compared to a control group ($n = 20$) with treatment as usual
Conclusion	Good empirical evidence for the RNR model [55]	Cognitive behavioral therapy and medical interventions are the most effective forms of treatment [49–52]	SRM has been supported by research and can be applied in the treatment of sexual offenders	No differences and/or improvements for the GLM compared to the RNR [45] could be found by Harkins et al. (2012) [54] In regard to the positive approach of the GLM, it could be possible that participants of the program, especially high-risk offenders, are more motivated to participate and complete the treatment	Little research evaluating psychodynamic approaches

sex crime-related topics such as rape myths, sex education, and development of an emergency action plan, but also covers more general psychotherapeutic topics such as coping strategies, emotion regulation, social interaction, and communication skills. Besides a constant development of useful approaches, the program includes general psychotherapeutic techniques and lessons learned from existing treatment programs for sexual offenders. It represents a novel approach in the so-called "dark field" and aims to reduce the number of sexual assaults by primary prevention.

Prevention Project Don't Offend

The project "Don't Offend" was initiated in Berlin in 2005 and now involves 11 sites all over Germany. By following the Berlin Dissexuality Therapy Program (BEDIT), it offers a free and confidential treatment for people seeking therapeutic help with their sexual preference for children and/or early adolescents. Affected persons receive support via cognitive behavioral techniques to prevent sexual offending in the form of direct contact as well as indirectly via the consumption or production of child sexual abuse images (so-called child pornography) on the internet. Designed as a group therapy, the BEDIT consists of 12 modules and covers topics such as motivational work, emotion regulation, coping strategies, problem-solving, and protective measures. The program uses cognitive behavioral techniques to reduce the risk that clients will become perpetrators.

Prevention Project Stop It Now!

The project "Stop it now!" [44] is located in the United Kingdom, Ireland, and the Netherlands, and offers information, advice, and guidance to anyone concerned about child sexual abuse. Additionally, the project offers help to professionals, parents, and people who are at risk to offend children and people who have committed child sexual offenses. Another aim of the program is to raise awareness of child sexual offending [43].

Overall, there is a number of important aspects the practitioner should include into counseling and treatment when (s)he is confronted with patients that are at risk of (re)offending. Figure 25.1 gives an overview of essential components in counseling and treatment.

Fig. 25.1 Important topics for treatment of patients at risk of sexual (re) offending

25.4.2 Counseling Techniques Concerning Sexual Violence

For most practitioners asking a client about their sexual desires and possible offenses in the past and present can be inconvenient or even scary. However, communication and being brave enough to ask about those unpleasant topics are essential to enrich (sexual) therapy. Asking about sexual offenses should always come from a place of empathy and appreciation and one should not judge or condemn the person as a human being. Answers from the client should always be validated and appreciated. It is only human to condemn the crime, but it is essential for future therapeutic work and alliance not to condemn the person. Also, it is necessary to integrate a special vocabulary and a personal style on how to ask about deviant fantasies and sexual offenses. There is not one "right way." Therefore, it is important for each and every practitioner to think about how they can address the topic in their own way. A good way to start that thinking process is to change into the perspective of someone sitting in front of a therapist and being asked about possible deviant fantasies and what they would need to open up about it. Firstly, the practitioner must create a positive atmosphere without judgment. A helpful introduction into the topic might be "Some clients of mine report that they have sexual fantasies and urges that are not 'normal' and might be judged by society. Have you ever experienced such fantasies and urges in your life?" Overall, the most important part of talking about such fantasies and urges is the therapeutic alliance. Therefore, it is understandable that such a topic does not have to be addressed in the first therapeutic session but it should be addressed as soon as possible.

When clients describe their deviant sexual fantasies and urges and the practitioner decides that (s)he wants to offer therapeutic help, there are some practical issues that should be focused on:

1. **Safety first.** Every practitioner should ensure that (s)he is safe when treating an individual with sexual deviant fantasies. This includes
   (a) Letting others know when you are in this session

(b) Making sure that there is nothing between you and the door when working with the client
(c) Having an alarm system or an exit plan
(d) Not being alone in the office
(e) Not giving counseling late in the evening when nobody is there to offer help
(f) Trusting your intuition when feeling unsafe and not forcing yourself to work with those clients
(g) Asking for help of colleagues when feeling lost and maybe consider a therapeutic session with them and the client together

2. **Knowledge**
   (a) Know the confidentiality/mandatory reporting laws of your country. In Germany, practitioners are not allowed to share any information about past crimes with the police, in Canada and the United States you are not only allowed but required to by law. So know about the law in your country to be safe.
   (b) Keep up with research about treatment options and possible work with those clients to enrich therapy and make sure that your counseling is efficient and effective.
3. **Supervision.** Make sure you have access to a supportive network and regular supervision and intervention.
4. **Self-Care.** Make sure you have strategies to leave the work and the story behind. Develop strategies to stop rumination about the topic.

25.4.3 Pharmacotherapy

The World Federation of Societies of Biological Psychiatry (WFSBP) guidelines for the biological treatment of paraphilias were released in 2010 [56] and in 2016 for the treatment of adolescent sexual offenders with paraphilic disorders [57]. These algorithms may be very useful for the clinician; however, the underlying scientific quality of cited studies is usually weak and does not allow reliable conclusion about efficacy and safety. Nevertheless, the WFSBP guideline algorithms may represent a useful tool for clinicians when initiating a pharmacological intervention in men with paraphilias and/or who have sexually offended or are at risk of offending. As part of shared decision-making, we strongly recommend that clinicians conduct a detailed conversation on desired effects and side effects and obtain written informed consent (see also Gibbels et al., 2019 [43]).

The 2010 WFSBP guideline on biological treatment of paraphilias [56] proposes a six-level algorithm which may appear complex for less experienced clinicians, and the distinction between the different levels is not always well defined. The goal of all the treatment levels is to control paraphilic sexual fantasies, compulsions, and behaviors with different degrees of reduction or suppression of conventional and/or deviant sexual drive and activity. Usually, if one level is not sufficient, the higher level should be chosen. The levels are the following (see also Gibbels et al., 2019 [43]):

- Level 1: Psychotherapy (preferentially cognitive behavioral therapy) is suggested.
- Level 2: As a suggestion for all mild cases (paraphilias with a low risk of sexual violence, such as exhibitionism) and when level 1 actions have not been satisfactory, SSRIs can be prescribed.
- Level 3: As a means of substantial reduction of sexual drive and activity and in cases of moderate and high risk of sexual violence ("hands on" paraphilias without penetration), adding a low-dose antiandrogen (e.g., cyproterone acetate (CPA) 50–100 mg/day) to SSRIs is suggested.
- Level 4: In case of moderate and high risk of sexual violence and when level 3 has not been satisfactory, a full dosage of CPA 200–300 mg/day orally or 200–400 mg intramuscularly (IM) once weekly or every 2 weeks is recommended. Where CPA is not available, medroxyprogesterone acetate (MPA) 50–300 mg/day is an alternative. When comorbid affective disorders (e.g., anxiety, depression, obsessive-compulsive symptoms) are present, the antiandrogen can be augmented with an SSRI.
- Level 5: As a means of almost complete suppression of sexual desire and activity and in cases of high risk of sexual violence (e.g., sexual sadism fantasies and/or behavior or physical violence), long-acting GnRH analogues can be used (i.e., triptorelin or leuprolide acetate 11.25 mg every 3 months). If necessary, this intervention can be monitored by measurement of testosterone levels. Please note that CPA (or MPA) should be given 1 week before and during the first months of treatment with a GnRH analogue to prevent an initial flare up effect from the GnRH analogue.
- Level 6: A complete suppression of sexual desire and activity may be achieved by administration of an antiandrogen treatment, i.e., CPA (50–200 mg/day orally or 200–400 mg once weekly or every 2 weeks IM) or MPA (300–500 mg/week IM if CPA not available) in addition to GnRH agonists. An SSRI may also be added.

The algorithm for pharmacological treatment of adolescent sexual offenders with paraphilic disorders is similar (for details see Thibaut et al., 2016 [57]) while the scientific background is even weaker. Moreover, the developmental stage of younger individuals may limit the use of certain drugs due to side effects.

Side effects should be monitored regularly to all patients. Carefully administrated physical, laboratory, and instrument-based diagnostics (e.g., electrocardiogram, osteodensitometry) are recommended. In our clinic, all patients who receive long-term treatment have regular visits every 4–12 weeks and checkups (e.g., electrocardiogram, laboratory tests) at least every 6 months. We usually provide relevant information on pharmacotherapy during a group psychoeducational intervention and in a one-to-one appointment. For educational purposes, we use a more simplified schema which basically incorporates psychological interventions and an optional three-level pharmacological treatment which allows for the same steps and combinations as described in the six-level algorithm (Fig. 25.2).

For a case report on individual efficacy on antiandrogen treatment see Fig. 25.3 and Gibbels et al. (2019) [43].

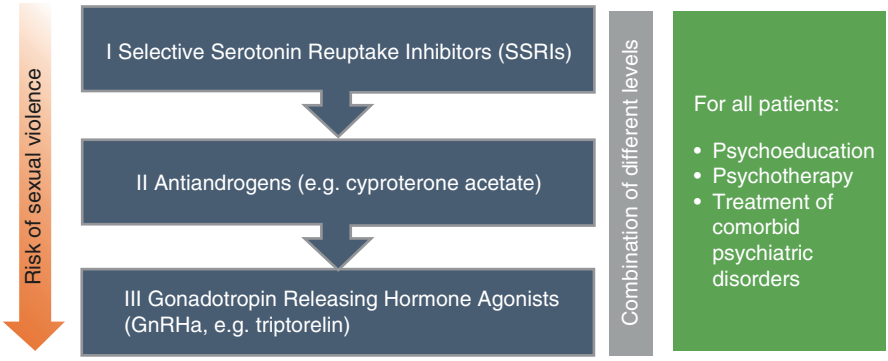

Fig. 25.2 Simplified three-level approach in treatment of paraphilias and men at risk of sexually offending

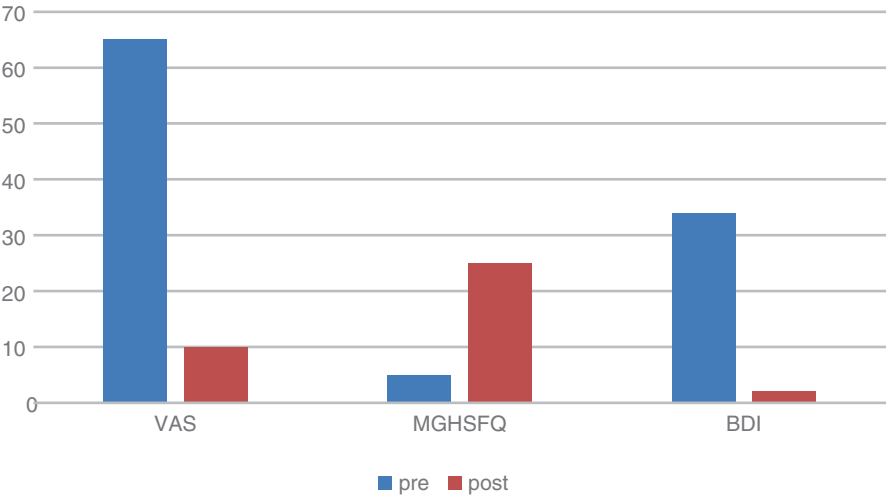

Fig. 25.3 Symptom severity using a visual analogue rating scale (VAS), sexual function (Massachusetts General Hospital Sexual Functioning Questionnaire, MGHSFQ, high number is equivalent with poor sexual function), and depressive symptoms (Beck Depression Inventory, BDI) in a patient with pedophilia before and after initiation of antiandrogen treatment with cyproterone acetate 100 mg/day (for details see Gibbels et al., 2019 [43])

Apart from this classic sex drive addressing pharmacotherapy, a large Swedish register study [58] has demonstrated that proper treatment of psychiatric diseases (as a risk factor for offending) is able to substantially reduce crime rates among affected patients. In this register which included 82,647 patients taking antipsychotics or mood stabilizers, their psychiatric diagnoses and subsequent criminal convictions, it was shown that compared to periods without medication, violent crimes fell by 45% in patients receiving antipsychotics (hazard ratio [HR] 0.55, 95% CI 0.47–0.64) and by 24% in patients prescribed mood stabilizers (0.76, 0.62–0.93).

This emphasizes that in addition to relapse prevention and psychiatric symptom relief, the benefits of antipsychotics and mood stabilizers may also include reduction of offending rates.

25.5 Key Messages

To illustrate the main topics and keys to handle the treatment of real or potential sexual offenders, some bullet points for the practitioner are given:

- Sexual violence occurs across most ethnic, religious, and socioeconomic groups throughout the world.
- Sexual offenders are a heterogenous group—therefore diagnostic and treatment should focus on the individual and their needs.
- Motives for sexual violence vary and can be situational as well as personal.
- Comorbid psychiatric disorders should be included into treatment since they may extend the risk of (re)offending.
- Even if pedophilia is thought to be the most important risk factor for engaging in sexual offenses against children, it is neither a necessary nor a sufficient factor for committing child sexual offenses.
- Preventive work is a key to reduce sexual violence; therefore, talking to patients and asking them about deviant sexual fantasies should be included in every patient treatment.
- Psychiatrists and psychologist should be able to provide a basic approach for people at risk for sexually offending or reoffending including diagnostic, counseling, and some core aspects of general psychotherapy.

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The Clinical Impact of Sexual Violence on Men and Women and Its Management

26

Goran Arbanas

26.1 Introduction

Sexual violence has more mental health consequences than any other kind of physical violence. There are many reasons for this. Sexual violence is not just physical violence, but also a direct violation of the intimate and psychological boundaries of the victim. In the case of sexual violence, victims are often accused of "asking for it" or otherwise encouraging the abuse, in what a phenomenon referred to as blaming the victim. For example, female victims are often asked why they were at the place at that time, what they were wearing at the time of the abuse, whether they encouraged the perpetrator to think they are willing to participate in a sexual encounter, whether they were wearing too much make-up, etc. This never happens to victims of other types of crimes and offences.

There are also many wrong *stereotypes (myths)* connected to rape, such as the following: the rapist is not known to the victim, the rape happens in dark alleys with the threat of a weapon, the victim should always fight back more, sexual violence is an impulsive act, etc.

Similar to domestic violence, sexual violence is a *gender-related crime*: the great majority of victims are female, and the great majority (more than 90%) of perpetrators are male (even when the victim is male). Sexual violence is not usually reported to the police (some estimates claim that only 10% of sexual crimes are reported) for a myriad of factors, including fear of victim blaming, the fact that the perpetrator is a closely known person to the victim and the experience of guilt and shame surrounding the abuse. The victims do not report sexual abuse because they believe neither their environment nor the system will help them. They are often also afraid of the perpetrator (as he may threaten the respective person or his/her family

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members). Victims also fear stigmatization (it is not easy to be the victim of a rape), and they fear reactions from family members and friends; sometimes the closest members of the family do not believe them, especially if the perpetrator is the family member. In the case when the perpetrator is a family member, sometimes the victim is financially dependent on him, and complex emotional relations can result (e.g. ambivalence), etc.

Usually, sexual violence is divided into three types (intensities): (1) sexual harassment, (2) sexual abuse and (3) rape.

1. *Sexual harassment* encompasses unwanted sexual behaviours that do not include direct physical contact, but make the victim feel unpleasant, humiliated or ashamed. Examples of sexual harassment include explicit unwanted sexual offers, unwanted comments about the body or sexuality of a victim, body language that contains sexual connotations (e.g. standing too close to a person, winking, showing rude sexual signs), emotional harassment and stalking (e.g. sending many texts with sexual content, writing many letters trying to persuade a person to be in a sexual relationship with the perpetrator), promising some favours at work or school as a reward for sexual activities.
2. *Sexual abuse* is a more intense form of sexual violence, but still less intensive than rape, and includes sexual behaviours forced by physical violence or threats and behaviours that include physical contact with a perpetrator. Different types of sexual abuse are physical restraint and touching the body without consent, unwanted and violent touching of the intimate body parts, sexual activities reached by lying, threats or constant pressure, forcing one to watch the masturbation of the perpetrator, or forcing to masturbate the perpetrator or being forced to masturbate in front of the perpetrator.
3. Finally, *rape* is the most violent form of sexual violence and includes any forced sexual encounter (vaginal, anal or oral) with a penis or any other object.

26.2 Consequences of Sexual Violence

Sexual violence is usually perceived as a traumatic life event. Unwanted, negative life events can be classified either as a trauma or as a stressor. The stressful life event is less intensive than the trauma, and we cannot escape stressful events during our life span. Examples of stressful events are divorce, a child leaving the home and loss of a job. The traumatic event is more intense and has more negative consequences. The definition of a traumatic life event has changed in the last few decades. In the DSM-III it was defined as “an event that is outside the range of usual experience and that would be markedly distressing to almost anyone”. Because epidemiological data showed that many people experience traumatic events during their life span, traumatic events were no longer defined as something outside the usual human experience. Therefore, the DSM-IV redefined trauma as “an event that involves actual or threatened death or serious injury, or a threat to the physical integrity of

self or others". The DSM-5 went a step further and redefined trauma as a "death, threatened death, actual or threatened serious injury or actual or threatened sexual violence". So, now, sexual violence is directly included as a traumatic event (not just experienced, actual sexual violence but also threatened sexual violence).

Sexual violence can have physical, emotional and social consequences. Possible physical consequences are physical injury, injury to genitals, reproductive health problems, unwanted pregnancy and sexually transmitted diseases. Social consequences include stigmatization, labelling, isolation and feelings of being ostracized. Psychological consequences (and we will focus on these in the following text) are mental health problems (including posttraumatic reactions and disorders), sexual health problems and impaired senses of self-respect and self-esteem [1].

Some psychological consequences that are of a lesser degree than mental disorders are anxiety, anger and sense of vulnerability, loss of self-respect, loss of emotional control and self-blame. The majority of survivors, after the assault, manifest anxiety by both physical (e.g. palpitations, sweating, tremor, choking, headaches, stomach aches, urinary problems) and mental symptoms (e.g. tension, nervousness, apprehension, sleeplessness). The person can feel intense anger and rage toward the perpetrator, self, the judicial system or God. The person asks the same question—Why me? Also, as the sense of security is shaken, there are often feelings of vulnerability and prominent danger. Very often, the person tries to find if she/he has influenced the situation, did something wrong or could have done something differently, with the intense feeling of self-blame, guilt and loss of self-esteem. Such reactions are normal and usually dissolve without treatment after a few weeks or months.

In children, behavioural reactions are more prevalent than in adults, with changes in usual behavioural patterns and aggressiveness toward others or self (e.g. cutting, picking the skin, etc.) (up to 23% of children who were sexually abused participated in some kind of self-harm or self-injury behaviour) [2].

All the research shows that people who experience traumatic events have higher rates of mental health and sexual problems. As was said at the beginning, victims of sexual traumatization have more mental health problems than victims of other forms of traumatization—they have more anxiety disorders and more severe PTSD, but also more sleeping problems, more depressive disorders and lower self-esteem [3, 4]. The most typical mental disorders developing after sexual trauma are acute stress reactions, PTSD and depressive reactions. Up to 30% of sexual assault victims develop PTSD, and up to 75% other anxiety disorders or depression and one in four rape victims engage in a suicide act [5–7]. Suicide rates are also higher compared to other types of traumatization. Also, some people develop phobic reactions. Psychiatric consequences are more prevalent in women, but this may also be due to depression being more easily and readily recognizable in women, compared to men.

During the first hours after the trauma, the person can develop symptoms of **acute stress reaction**, with emotional numbness, or no emotional reactions, or even severe agitation and dissociative phenomena. Many survivors have physical symptoms: nausea, vomiting, headache, sweating, palpitations and muscle pain [8]. After

a month, these symptoms typically either cease or develop into the symptoms of full-blown *PTSD*. The core symptoms of PTSD are re-experiencing the traumatic event, avoiding of clues to the event, emotional numbing and experiencing hyperarousal symptoms.

In children, similar symptoms can develop: low mood, loss of appetite, sleeping problems and concentration problems. Some children will also develop specific symptoms, such as school absenteeism, bad grades at school, not being attentive at school, drug use, somatizations, autoaggressive behaviour and even suicide [9].

The possible negative psychiatric outcomes are major depression, PTSD, somatization disorder, bulimia nervosa, dissociative identity disorder and borderline personality disorder (and many others, but the aforementioned disorders have consistently been demonstrated as consequences of childhood sexual trauma) [10]. Some of these consequences develop shortly after the trauma (in childhood, e.g. major depression, PTSD), while others either develop or persist into adulthood (e.g. personality disorders, eating disorders).

26.3 Sexual Problems in Sexual Trauma Survivors

Expectedly, sexual problems are much more prevalent after sexual trauma compared to non-sexual trauma. More than 80% of sexual trauma victims have sexual problems afterward, compared to 19% of non-sexual trauma victims [11]. There are many reasons why sexual trauma, but also mental disorders (PTSD, depression) that follow sexual trauma, can lead to sexual problems. Depression lowers sexual desire, and alcohol abuse (and we know that alcohol-related problems are often comorbid to PTSD and depression and often develop after the trauma) can lead to sexual problems. Medications used in these disorders can also increase the risk of sexual problems (as many have sexual side effects) [12]. We also know that those with PTSD who use medication have sexual problems 1.5 times more often than those who do not use them (but it is also possible that those who use medication have more severe PTSD). However, antidepressants can relieve the irritability of the patient and can enhance the communication with the partner and thus can improve sexual relations.

On the other hand, research showed that there is no testosterone deficit after the trauma [13]. Emotional dysregulation can be the consequence of trauma, and it can have a direct influence on the relationship between the victim and his/her partner. Also, PTSD increases irritability and jeopardizes intimate relations [14]. Finally, trauma changes life expectations and life perspective, and the person (victim/survivor) can drastically change his/her life style and assumptions about self and the world in general. Sometimes this can lead to paying more attention to loved ones and cherishing relationships, but sometimes it can also lead to relationship changes with a partner and possible sexual problems.

Unfortunately, regarding sexual problems, the majority of research does not examine which specific sexual problems (with the exception of erectile dysfunction) are prevalent, nor what part of the sexual cycle was impacted. Nevertheless, we

know that sexual problems are more prevalent in those who develop mental illness after the sexual trauma [15]. The prevalence is highest for those with PTSD (not just in case of sexual trauma but also in case of non-sexual trauma) [16]. One of the few studies examining specific sexual problems showed that up to 85% of male PTSD patients complained of erectile dysfunction, compared with sexual desire problems (up to 63%), and vaginal pain (in the case of female patients) [17]. In patients who develop PTSD, there is a correlation between avoidance symptoms and sexual desire problems [16].

Traumatization influences not just sexual disorders but also other components of sexuality: people who experienced traumatic events have fewer sexual fantasies, engage less often in foreplay and oral sex and also have sexual intercourse less often [18].

Typical sexual consequences in women are loss of sexual desire and sexual aversion, but orgasm problems can also develop.

26.4 Specific Victim Groups

There are some groups that are more often the victims of sexual violence. Younger age (especially the age group 14–25 years old), having a mental illness and identifying as LGBT (lesbian, gay, bisexual and transgender) are all risk factors. In the case of LGBT people who have not yet come out of the closet, the perpetrator has a special way of blackmail—she/he can threaten to expose the sexual orientation of the victim. People with physical disabilities are also at a higher risk (especially if female, older and homosexual).

The perpetrators of sexual harassment in childhood are usually peers, friends or siblings, while perpetrators of sexual abuse and rape against the same age group are parents, family members, friends of parents, teachers, neighbours but rarely people unknown to the child.

The perpetrators against adult victims are also usually people known to the victims: their partner, a family member or friend or an acquaintance. The fact that most often the perpetrator is a close and important person for the victim will lead to many problems (especially for children). As the perpetrator is often a person the victim loved (or maybe still loves), emotional problems (mixed feelings of love and hate) will rise, but so too legal difficulties (whether or not to report the person). Children will have special emotional problems in the case of being sexually abused by parents or siblings, as they will present with ambiguous feelings: should I love or hate the person, they will struggle with how to incorporate this experience into their life story, whether they should say something to parents or not, etc.

A special subgroup of sexual trauma survivors is men. Although there is a stigma toward female sexual victims, it is even more profound toward men who are victims. More negative attitudes exist toward male victims, especially if the victim is homosexual [19]. This is probably one of the reasons why men report sexual violence even less often than women (male victims in countries where homosexuality

is related with shame and gay rights are disrespected are afraid they will be proclaimed homosexual). Men do not want to talk about the event, due to shame, not even to the professional. Rape deeply shatters the sense of masculinity and the male gender role. In rare cases when women are the perpetrators, the public (and some professionals) even doubt (unduly, of course) whether something like this is even possible (Is it possible for a woman to rape a man if he does not want to participate in such an activity?). The perpetrators of sexual violence against men are most usually men. This kind of violence happens most often in concentration camps, among prisoners and in the family (family members as perpetrators against children, partners against men in both homosexual and heterosexual relationships) [20]. In case of prisoners and war victims, the perpetrator not just wants to punish the victim but also to humiliate him.

Men also have specific sexual consequences of sexual traumatization. While in women, loss of sexual desire and sexual aversion are typical reactions, in men delayed ejaculation can develop.

The quality of care for male survivors is lower than for female survivors for several reasons: often, there is no empathy toward male victims, and some professionals have negative attitudes toward male victims, and the theories on which care programmes are established are based on sexual violence toward women and are not (always) appropriate for male victims. Therefore, whenever we have men in high-risk situations for rape (e.g. war concentration camps, prisons), we should ask if an unwanted sexual encounter ever happened to them.

Another specific group is individuals with mental disorders who are at higher risk of sexual abuse. Also, in the case of severe mental disorders (e.g. schizophrenia), due to the stigma toward mental illness, people often do not believe them when they report sexual abuse as they are considered unreliable. Sometimes, symptoms of the mental illness can have a direct influence on emotional expression, which increases the probability of discarding their claims. This is demonstrated in patients with severe schizophrenia and neurodevelopmental disorders, or in patients on the autism spectrum wherein they experienced difficulties in showing their inner emotional states. Parathymia and paramimia are symptoms of schizophrenia, and in these cases, the person experiences or shows emotions contrary to what would be expected in such a situation; a person with autistic disorder will have great difficulties in relation with other people, in recognizing other's emotions and also in showing appropriate emotions; and this will lead other people to conclude they have not experienced what they are claiming they did.

26.5 Prevention

Children should be taught how to escape sexual abuse (when possible). Parents and teachers can teach them how to say "No!" when someone is trying to intrude into their intimate zone. One way to help children set boundaries is to teach the child that nobody (including parents) is allowed to touch body parts that are covered by

swimming suit. Also, children should be taught that in case of abuse, they should readily tell this to a parent, teacher, neighbour, relative, doctor or police officer, no matter what the perpetrator said (e.g. that will reveal some secret or that will harm a sibling or a parent). If the child cannot talk directly to the adult (due to shame, guilt, fear), maybe she/he can write a letter, describing what she/he had experienced. Very often children think that other people will not help them, or that no one will believe their experience. Another potential problem is that sometimes the perpetrator claims that this was some kind of education or the perpetrator threatens the child. Therefore, children should be taught about what sexual abuse looks like, who might be likely to do it and how the child should inform an adult if they experience sexual abuse.

26.6 Clinical Management

What should we do as professionals? The first and the most important objective is to *provide security* for the victim. The person has been abused, and her/his bodily boundaries have been violated, so security is of paramount importance. If the perpetrator is not under arrest, the victim should be placed in a secure home, hospital or some other facility.

An equally important objective is to *stay calm and professional*. The victim needs support from professionals, not re-traumatization. Therefore, it is important to stay calm and not to overshadow the victim's own emotional reaction. The victim is distressed, and it is our responsibility to provide a calming and supportive environment for them.

We should pay attention to our own emotional reactions and be sure not to show any sign of disrespect or accusation toward the victim, no matter what sex, gender or sexual orientation the victim identifies with. Also, we should repeatedly *assure the person that it is not her/his fault* and that the perpetrator is the only one to blame. Whenever the person starts blaming herself/himself, we should repeat these words.

The professional's room should be a place of trust and privacy. The person should be assured that she/he can say whatever comes to her/his mind and that we will not disclose any feelings or thoughts the person has. Every effort should be expended to let the person express all her/his feelings, no matter how painful or distressful they are. It is therapeutic to try to help the person translate the inner feelings and thoughts into words (by doing this the person makes sense of the experience and makes the whole story more logical and less driven by inner, primary processes).

The professional should explain to the victim what her/his options are, but under no circumstances should the professional make the decision for the victim (this of course differs from country to country and usually is the duty of the medical professional to inform the police of suspected child sexual abuse; in the case of adults, the duty differs. In any case, we need to inform the victim if we are going to report the abuse to other parties). It is the survivor's responsibility to reach these decisions as

appropriate for their life. We, as professionals, can discuss all the options and discuss pros and cons, but we should not suggest any final decisions. We should encourage the person to decide. By giving only her/him the right to decide and withdrawing from any decision-making, we give strength to the person and do not deprive him/her of control (otherwise, if we decide instead of the person, we are violating her/his rights, which is a kind of re-traumatization). Once again, it is important to note this is the case only with adult victims.

If a person who experienced sexual violence is going to court, the professional should prepare the person because there will be many situations when the victim will feel threatened or can be psychologically decompensated. Sometimes, the victim will have to face the perpetrator in the courtroom (if she/he is not protected from this by the decision of the court to ask questions via video link), the victim will have to repeat all the details of the victimization in the court, and this can lead to symptom progression. The lawyer of the accused can ask intimidating questions. The person should be adequately warned that all of this can occur and should be taught appropriate coping skills. Some of these coping skills include practicing relaxation techniques (e.g. progressive muscle relaxation, breathing techniques) or taking a low dose of benzodiazepines an hour before the court (e.g. 0.25–0.5 mg of alprazolam or 2–5 mg of diazepam). The victim can also be instructed not to look in the direction of the perpetrator during the court sessions and to ask the judge for short breaks if she/he feels very disturbed or shaken.

The continued treatment of the victim will depend on whether the sexual assault happened in childhood or in adulthood and how much time has elapsed since the original trauma.

When working with children, play and drawings are used. Some children are not able to talk about the experience, but are willing to play out the experience they had with toys. Sometimes the child does not have a broad enough vocabulary to describe the abuse, but they can draw a picture of it. These play-based activities and drawings can have a psychotherapeutic impact, as this can be a way of expressing feelings and thoughts connected with the experience.

One of the important elements of therapy is also the work through the relationship with the perpetrator, when the perpetrator is an important figure. The therapist should talk with the child (but this is also the case with adults, when the perpetrator is a close figure) about ambivalent thoughts and emotions (e.g. “I love my grandpa, but I also hate my grandpa for what he did”) and whether to continue to have contact with him in the future (in a secure setting, of course). For this purpose, it is important to include other family members and educate them about the feelings the child is experiencing and how they can help the child, for example, by giving him/her support and allowing the child to talk about the perpetrator and allowing the child to talk even about positive feelings that s/he can have toward the perpetrator, to which feelings other family members sometimes react to in an aggressive way.

Whenever possible, the perpetrator should be removed from the family, and the legal system should deny him contact with the victim. Only in those situations where the security of the victim is in question or revictimization is possible should the victim be placed in a secure location.

Contacts with the perpetrator should be encouraged only in cases when the perpetrator is a close family member or a close friend of the victim and when the victim is ready to continue the contacts. In situations where future reoffending is possible, a professional in the field (e.g. a psychologist, social worker, psychiatrist, etc.) should closely monitor the perpetrator.

26.7 Sexual Therapy

Sexual therapy should start only when the patient is no longer in an abusive relationship. Abuse of any kind in a relationship is one contraindication for sexual therapy. To start sexual therapy, the person must feel safe and comfortable in their relationship. The therapy should, whenever possible, be offered as a couples therapy, as it is very important to explain to the partner that due to the patient's shattered sense of security and trust, therapy will go much slower than usual. It is prudent to start working with nongenital touch (e.g. the first exercise of sensate focus) and to stay a long time on this level of activity, to establish trust between the partners. Survivors of sexual violence are often afraid of physical contact and sometimes avoid any contact on a particular body part (e.g. one woman who experienced rape did not allow anyone to touch her neck, as the rapist threatened to strangle her during the rape and held his hands on her neck). In this case we can employ the hands of the survivor during nongenital touch, such that we explain to the partner that during this game, the victim will hold her/his hands on the hands of the partner and control the touch whenever it becomes uncomfortable or produces anxiety. It is important to give this control to the victim over her body (so patients are instructed to stop their play/exercise if the person feels any kind of discomfort, fear, nervousness or anxiety).

Only after nongenital touch is comfortable, enjoyable and pleasant should we proceed to genital touch. At this point, the couple is encouraged to include the genital touch, but with the survivor's hand guiding the hand of the partner showing the partner what movements and body parts are allowed to be touched and in what way. By doing this, we again give control to the survivor. Time is a very important factor in therapy, as the person needs to relearn that close relationships can be comfortable and satisfying.

In couples therapy setting (which is the preferred mode of treatment), we encourage the patient to talk about her/his feelings, fears and anxieties, in front of the partner. In this way, the partner will gain more insight into the inner life of the victim and gain greater empathy to why the person may be avoiding intimacy or touch. The therapist should also encourage the partner to talk about his/her doubts as many people are not sure whether to ask about the trauma, or to pretend as nothing has happened. The best way to decide on the appropriate action is to talk openly about reasons for and against on both sides.

When symptoms of PTSD or depression are resolved and a secure and trusting relationship is established, sexual therapy can proceed in its usual course.

26.8 Case Reports

Case Report 1

Steve is a 42-year-old old man, single and employed as a carpenter. He lives alone. During the war, he was captured and kept in a concentration camp for 2 months. During that time, he had suffered terrible traumas, including being beaten dozens of times sustaining significant injuries and fractures. He was also raped by men several times during his captivity.

His sexual problem is that he cannot ejaculate in any kind of sexual encounter, not even during masturbation. He says that during sexual activity, the images of the rape or of the physical abuse he suffered in the camp come into his mind, and he cannot concentrate on pleasurable things. For this reason, he was not able to stay in relationships and usually stopped dating women, as he was afraid that he would not be able to have intercourse.

He began treatment for PTSD 5 years ago, but on one occasion, he heard (while in a waiting room) a doctor and a nurse commenting on his sexual abuse. He was so embarrassed that he left the room and never again visited the same doctor. Later on, he continued treatment for PTSD with another psychiatrist, but he never mentioned the sexual abuse he experienced in the concentration camp. This demonstrates the importance of our professional and ethical considerations in any case of sexual abuse. Victims of sexual abuse are ashamed of what happened to them, and it is the obligation of every professional to try to alleviate the feeling, not to increase it.

Now he has decided to see a sexual therapist, because he met a woman he likes a lot, and he would like this relationship to be successful.

As the patient has been already taking an antidepressant (escitalopram) and he has been seeing a psychiatrist for his PTSD symptoms, the first goal addressed his sexual problems. The patient wrote an ideal sexual scenario, when he was relaxed and in a positive mood state. His scenario was about having sex on the beach. He attempted to try to masturbate when feeling OK, with this scene in his mind. He was advised to stop the masturbation if the intrusive thoughts of concentration camp come into his mind. The patient reported a desire to masturbate in the shower as he enjoyed the feeling of water on his skin, so he was instructed to do so. On the other hand, when he tried to concentrate on the scene in other circumstances (in his bed), intrusive thoughts would quickly appear. After a few sessions, and after he was sure nothing disturbing would happen in the shower, the therapist asked him if it would be possible for him to caress his partner, in the shower. Instead, he suggested that he and his girlfriend go to the nearby river and caress in the water. She agreed, and that was a nice experience for him, although he was not able to ejaculate, but he had a firm erection, and no intrusive thoughts were present. Later, he was able to ejaculate when masturbating and thinking about this experience or fantasizing about a sexual experience in the sea. The patient was

focused on his inability to ejaculate and the anxiety it produced about his relationship with his girlfriend, while the therapist wanted to include the topics of enjoyment, arousal and orgasm.

After a few weeks with him being able to touch his girlfriend and become aroused with no intrusive thoughts, but still not being able to ejaculate, the therapist decided to invite the girlfriend to the therapy to try addressing their relationship. The patient agreed to invite the girlfriend, so couples therapy continued with the usual way of treating delayed ejaculation (it was agreed that he would masturbate in front of her, until ejaculation; later she would stimulate him with her hands, etc.), but with the focus on intimacy and trust.

Case Report 2

Anna's parents divorced when she was 7. Her mother had a low-income job, and when Anna was 9, she decided to rent out one of the rooms in her flat. At the time, Anna, her mother and her 4-year-old brother were all sleeping in one room, and a young man agreed to rent the other room. A few months later, this young man started to rape Anna. When Anna was at home alone (her mother was working, and her young brother was in kindergarten), he would call Anna to come to his room and to take off all her clothes. Every time he did this, he told her that if she ever said anything about this, he would leave, and Anna and her mother would be left with no money at all, and her mother would need to abandon her and her brother. On other occasions, he told her that in case anybody finds out about their little plays, he would kill her brother. Therefore, Anna kept silent.

He raped her continuously for 2 years, once or twice a week. At the age of 11, after 2 terrible years, Anna attempted to hang herself. By chance, her mother came home early that day and rescued Anna. She was placed in a hospital, but she never told anybody why she did it. The man continued to rape her after she came home from the hospital. She tried to kill herself again, this time by drug overdose. She was hospitalized again. Everybody asked her why she did it, but she kept silent. After this second suicide attempt, her mom decided to discontinue renting the room, as she felt she should take more care of her children and wanted Anna to have her own room.

At the age of 15, Anna developed anorexia nervosa, and she was again hospitalized, this time because her body mass was extremely low. She was treated for anorexia, but with little success. She continued to attend an outpatient treatment programme, and there one of the psychiatrists asked her about unwanted sexual encounters, so she decided to tell her mom what happened. Her mom at first did not believe her, but later understood this was the truth.

At the age of 17, Anna decided to leave her home and find a job, but also continued to study. She was very intelligent, and she finished college very fast and with good grades. She started dating older men at the age of 17. She always behaved in a very sexual way, flirted a lot, used a lot of make-up and used sexuality to get favours (e.g. in the school and at work).

She married and gave birth to a daughter. When her daughter was 9, she divorced, and she developed a severe depressive episode. At that time, she contacted a psychiatrist and asked for help. She was talking about her childhood experiences with no emotions at all, very coldly, as if retelling a story or a film. She stated she knew that she used sexuality and sex as a tool to get whatever she wanted. She acknowledged that she was deeply depressed and said she would like to die, but that she would not commit suicide because of her daughter.

She was diagnosed with borderline personality disorder, anorexia nervosa and depression. Individual therapy was started, but after 11 sessions, she stopped attending. She never contacted the same psychiatrist again.

The story shows us the permanent consequences the repeated trauma and violation produced. This girl was first violated by the tenant, who violated her body, then by her mother who did not believe her and then by medical professionals who did not suspect or recognize these unspecific signs of abuse.

If we look back at what could have been done differently, first her mom should have believed her (very often parents deny the reality of sexual abuse) and should have reported the case. Psychiatrists and other staff should have recognized the symptoms and suspected sexual abuse and should have explored more into her history.

The psychiatrist she contacted was male (it is interesting that she chose a male psychiatrist), and maybe he (the psychiatrist) should have explored more into the reasons she made such a choice (Was she trying to seduce him as she was doing with other men in her life, as this was her only way of dealing with men?). Could the psychiatrist be more persistent in trying to contact her after she stopped the therapy, showing her that she is valuable and important?

26.9 Key Messages

- Victims of sexual abuse and rape often experience guilt and shame and, therefore, do not report the event.
- Sexual violence can have physical, emotional and social consequences.
- More than 80% of sexual trauma victims have sexual problems afterward.
- Children should be taught how to escape sexual abuse and how to react in case it happens.
- Professionals working with victims should provide security, remain calm and maintain a professional distance.

- The victim should be afforded the opportunity to express his/her emotional reactions and to explore the options that are available.
- The treatment of mental disorders (e.g. PTSD, depression) should precede the treatment of sexual problems.
- Restoration of trust and capability to feel intimacy is an important part of sexual therapy of sexual abuse victims.

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Paraphilias: Diagnostics, Comorbidities, and Treatment

27

Safiye Tozdan and Peer Briken

27.1 Introduction

In the DSM-5 [1], the term paraphilia is defined as "any intense and persistent sexual interest other than sexual interest in genital stimulation or preparatory fondling with phenotypically normal, physiologically mature, consenting human partners." The addition of the word "disorder" to the classification of paraphilias is new to the DSM-5. This change was intended to take into account that paraphilic interests do not necessarily indicate clinical distress and/or a threat to others. In fact, the prevalence for non-pathological paraphilic interests in nonclinical populations is up to over 7%. For instance, kinds of pedophilic interests (i.e., sexual interest in children) such as sexual fantasies which included prepubescent children were shown to exist in 4.1% of 8718 German males [2], exhibitionistic interests (i.e., being sexually aroused by exposing their genital to a stranger) were reported by 3.1% of general population in Sweden [3], and voyeuristic interests (i.e., being sexually aroused by spying on others having sex) were reported by 10.5% of representative nationwide cohort in Finland [4].

Sexually deviant interests and/or behaviors should therefore not be confounded with a disorder that causes clinical distress and that is diagnosed based on the DSM-5 criteria for the paraphilic disorders. In the following, we (1) explicitly outline these DSM-5 diagnostic criteria as well as the ICD-11 diagnostic guidelines for paraphilic disorders, (2) describe current research results on comorbidity disorders in paraphilic individuals, and (3) present common methods of psychotherapeutic and pharmacological treatment.

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27.2 Diagnostics

In the DSM-5 [1], a distinction is made between paraphilia and paraphilic disorders. Paraphilia denotes any intense and persistent atypical sexual interest. In contrast, paraphilic disorder is in addition connected to distress, personal harm, and/or risk of harm for others. Every type of paraphilic disorder includes at least Criterion A to specify the qualitative nature of the paraphilia (e.g., that the symptoms persist over a period of at least 6 months) and Criterion B to specify negative consequences (e.g., significant distress or social impairment). Table 27.1 presents a short description of the DSM-5 paraphilic disorders.

The major diagnostic requirements for a paraphilic disorder for the ICD-11 are [5] (a) a sustained, focused, and intense pattern of sexual arousal—as manifested by persistent sexual thoughts, fantasies, urges, or behaviors—that involves others whose age or status renders them unwilling or unable to consent (e.g., prepubertal children, an unsuspecting individual being viewed through a window, an animal) and (b) an individual who has acted on these thoughts, fantasies, or urges or is markedly distressed by them. For some disorders, additional features are outlined (Table 27.2). Furthermore, differentiations to other disorders as well as boundaries to normal sexual thoughts, fantasies, urges, or behaviors are also described (cf. [5]).

The Working Group on the Classification of Sexual Disorders and Sexual Health has been established to review the sexual disorders and sexual health categories in ICD-10 and to make recommendations for changes in the ICD-11 [5]. The Working Group noted that the diagnostic guidelines provided for the ICD-10

Table 27.1 Short description of the DSM-5 paraphilic disorders

Paraphilic disorder	Description
Voyeuristic disorder	Recurrent and intense sexual arousal from observing an unsuspecting person who is naked, in the process of disrobing, or engaging in sexual activity, as manifested by fantasies, urges, or behaviors
Exhibitionistic disorder	Recurrent and intense sexual arousal from the exposure of one's genitals to an unsuspecting person, as manifested by fantasies, urges, or behaviors
Frotteuristic disorder	Recurrent and intense sexual arousal from touching or rubbing against a non-consenting person, as manifested by fantasies, urges, or behaviors
Sexual masochism disorder	Recurrent and intense sexual arousal from the act of being humiliated, beaten, bound, or otherwise made to suffer, as manifested by fantasies, urges, or behaviors
Sexual sadism disorder	Recurrent and intense sexual arousal from the physical or psychological suffering of another person, as manifested by fantasies, urges, or behaviors
Pedophilic disorder	Recurrent, intense sexually arousing fantasies, sexual urges, or behaviors involving sexual activity with a prepubescent child or children (generally age 13 years or younger)
Fetishistic disorder	Recurrent and intense sexual arousal from either the use of nonliving objects or a highly specific focus on nongenital body part(s), as manifested by fantasies, urges, or behaviors
Transvestic disorder	Recurrent and intense sexual arousal from cross-dressing, as manifested by fantasies, urges, or behaviors

Table 27.2 ICD-11 diagnostic guidelines for paraphilic disorders [6]

Paraphilic disorder	ICD-11 diagnostic criteria
Voyeuristic disorder	(a) A sustained, focused, and intense pattern of sexual arousal—as manifested by persistent sexual thoughts, fantasies, urges, or behaviors—that involves stimuli such as observing an unsuspecting person who is naked, in the process of disrobing, or engaging in sexual activity (b) The individual must have acted on these thoughts, fantasies, or urges or be markedly distressed by them
Exhibitionistic disorder	(a) A sustained, focused, and intense pattern of sexual arousal—as manifested by persistent sexual thoughts, fantasies, urges, or behaviors—that involves exposing one's genitals to an unsuspecting person in public places, usually without inviting or intending closer contact (b) The individual must have acted on these thoughts, fantasies, or urges or be markedly distressed by them
Frotteuristic disorder	(a) A sustained, focused, and intense pattern of sexual arousal—as manifested by persistent sexual thoughts, fantasies, urges, or behaviors—that involves touching or rubbing against a non-consenting person in public places (b) The individual must have acted on these thoughts, fantasies, or urges or be markedly distressed by them
Coercive sexual sadism disorder	(a) A sustained, focused, and intense pattern of sexual arousal—as manifested by persistent sexual thoughts, fantasies, urges, or behaviors—that involves the infliction of physical or psychological suffering on a non-consenting person (b) The individual must have acted on these thoughts, fantasies, or urges or be markedly distressed by them
Pedophilic disorder	(a) A sustained, focused, and intense pattern of sexual arousal—as manifested by persistent sexual thoughts, fantasies, urges, or behaviors—involving prepubertal children (b) The individual must have acted on these thoughts, fantasies, or urges or be markedly distressed by them *Additional features:* Some individuals with pedophilic disorder are attracted only to males, others only to females, and others to both. Some individuals act on their pedophilic urges only with family members, while others have victims outside their immediate family or both
Other paraphilic disorder involving non-consenting individuals	(a) A sustained, focused, and intense pattern of atypical sexual arousal, as manifested by sexual thoughts, fantasies, urges, and/or behaviors, in which the focus of the arousal pattern involves others whose age or status renders them unwilling or unable to consent that is not specifically described in any of the other named paraphilic disorder categories (e.g., arousal patterns involving corpses or animals) (b) The individual must have acted on these thoughts, fantasies, or urges or be markedly distressed by them (c) The presentation does not satisfy the diagnostic requirements of coercive sexual sadism disorder, pedophilic disorder, voyeuristic disorder, exhibitionistic disorder, or frotteuristic disorder

(continued)

Table 27.2 (continued)

Paraphilic disorder	ICD-11 diagnostic criteria
Paraphilic disorder involving solitary behavior or consenting individuals	(a) A sustained, focused, and intense pattern of atypical sexual arousal, as manifested by sexual thoughts, fantasies, urges, and/or behaviors that involve consenting adults or solitary behavior (b) One of the following two elements must be present: (1) The person is markedly distressed by the nature of the arousal pattern, and the distress is not simply a consequence of rejection or feared rejection of the arousal pattern by others. (2) The nature of the paraphilic behavior involves significant risk of injury or death either to the individual (e.g., asphyxophilia or achieving sexual arousal by restriction of breathing) or to the partner (e.g., consensual sadism that results in injuries requiring medical treatment) (c) If the diagnosis is assigned based on significant risk of injury or death, this risk should be directly and immediately connected to the paraphilic behavior. For example, a presumed risk of increased exposure to sexually transmitted infections is not a sufficient basis for assigning this diagnosis

classification of disorders of sexual preference often only described the sexual behavior involved and did not refer to distress or dysfunction associated with this sexual behavior. Additionally, the ICD-10 did not take into account aspects of public health or clinical importance of this sexual behavior. Therefore, a core change in the ICD-11 is whether an atypical sexual behavior refers to public health significance and clinical relevance [7]. In the ICD-11, disorders of sexual preference were renamed as paraphilic disorders to represent the common term used in current scientific literature and clinical practice [5, 7]. Due to the new conceptualization, three diagnoses of the ICD-10 were transferred to the ICD-11 as they were specifically termed as a disorder: exhibitionistic disorder, voyeuristic disorder, and pedophilic disorder. Simultaneously, the ICD-10 diagnoses fetishism, fetishistic transvestism, and sadomasochism have been removed from the classification. The new term coercive sexual sadism disorder is intended to clearly differentiate between the disorder and consensual sadomasochistic behaviors that do not include harm or risk. The new diagnosis frotteuristic disorder was added since frotteurism has been found to be a common paraphilic disorder [7]. All changes on the classification of paraphilic disorders that came with the ICD-11 are described in detail by Reed et al. [7].

Given the limits of self-report alone, regarding the assessment of paraphilic interests, the integration of multiple sources of information is considered necessary [6]. Assessment and diagnosis of paraphilias should include the examination of the patient's sexual, somatic, and psychiatric history via interview and self-report questionnaires [6]. Important issues in taking a sexual history among paraphilic patients are, for instance, a detailed exploration of various paraphilic tendencies (i.e., sadistic, masochistic, pedophilic, exhibitionistic, voyeuristic, fetishistic, transvestite, etc.), pornography consumption (including the use of

child pornography and violent pornography), contacts with sex workers, and experiences of sexual and/or other violent assaults in childhood, adolescence, or adulthood (as victim or witness).

In cases of acts of sexual violence, it might be that the offender fulfills the criteria of a paraphilic disorder. In such cases, judges (depending on the related system) examine whether the presence of a paraphilic disorder seriously reduced the offender's ability to comprehend the unlawfulness of the offence and/or to control himself or herself. Commonly, judges' decisions on the offenders' insanity include the appraisal of expert witnesses, i.e., psychiatrists, psychologists, experts in sexual sciences or sexual medicine, or psychotherapists. These experts are expected to use the diagnostic and statistical classification system that is the official national standard, e.g., the ICD for Germany. The diagnosis of a paraphilic disorder in Germany may lead to detention in a forensic institution that may extend beyond the time of the criminal sentence, as sex offenders who have paraphilic disorders have a poorer prognosis than those without paraphilic disorders. Due to the clearer distinction between consenting sexual behavior and sexual behavior to which another person does not consent, the new paraphilic criteria in the ICD-11 potentially reduce the likelihood of false positive diagnoses [8].

27.3 Comorbidities

It is not unusual that individuals show symptoms of one or more paraphilias at the same time. Research has demonstrated that some pedophiles also show exhibitionistic (12–13%) or voyeuristic (11–36%) behavior [9] and that some forms of hypersexuality appear to be related to exhibitionistic, voyeuristic, and other paraphilic behaviors [10]. Furthermore, research has shown that there is a high comorbidity of general psychiatric disorders in individuals with paraphilic disorders that should also be taken into account when applying treatment strategies. As shown in Table 27.3, psychiatric disorders, including mood disorders, social anxiety disorder, autistic spectrum disorders, and ADHD, were reported to be associated with paraphilic sexual offending [11].

Table 27.3 Prevalence of Axis I disorder in paraphilic sexual offenders [11]

Psychiatric disorder	Lifetime prevalence (%)
Major depression	30–56
Bipolar disorder	42–52
Dysthymic disorder	28–70
Social phobia	13–53
Generalized anxiety disorder	12
Panic disorder	24
ADHD	7–77
Conduct disorder	23–94
Alcohol abuse	10–55

Clinicians may have an indirect impact on decreasing the risk of sexual offending by adequately treating the comorbid, non-paraphilic disorders. Regarding personality disorders in paraphilic individuals, research has shown that especially the antisocial (dissocial) personality disorder seems to be related to paraphilic disorders in sexual offenders [12].

27.4 Treatment

Clinicians should focus on individual cases when conceptualizing and applying individual treatment strategies and plans. Historically, psychotherapy was considered effective for treating individuals with paraphilic disorders and those who commit sexual offenses. Research so far has revealed that effective treatments for paraphilic patients with a risk of committing sexual offenses include pharmacotherapy, psychotherapy, social skills training, and sex education [13]. In the following, we only give a short overview of psychotherapeutic treatment strategies and pharmacotherapy. For a detailed description on treatment strategies and guidelines, see [13].

27.4.1 Psychotherapeutic Treatment

Comorbid psychiatric problems as described above as well as the risk for (sexual) violence [8] and/or motivational issues should be managed first—if necessary.

Since the very beginning of empirical research on paraphilic disorders, there is an ongoing debate on the question whether paraphilic interests change or not. Empirically, this question is still open. However, recent theories as well as empirical results indicate that, for example, pedophilic interest in children may change depending on the individuals' motivation to change and their self-beliefs on being able to change their pedophilic interest [14, 15]. In clinical practice, patients report changes as well as fixed paraphilic interests across the lifespan [16].

There are cognitive behavioral treatment approaches suggesting that paraphilias are immutable. Such treatment approaches predominately focus on the patients' ability to control their sexual behavior [17]. Patients are supported in accepting their paraphilia as unchangeable and to integrate it into their self-concept. The primary goal is controlling sexual desires in order to impede potential sexual offending behavior [18].

Other approaches that use techniques like covert association [19], masturbatory reconditioning, and verbal satiation [20] are considered appropriate in treating patients with multiple paraphilias if patients decide to use them to reduce paraphilic arousal and if they are embedded in a broader psychotherapeutic concept. Since sexual activity seems to be a coping strategy (i.e., avoidance) for those multiple paraphilic patients [21], it appears to be appropriate to guide these patients to learn more effective coping styles [22]. Marshall et al. [23] describe several behavioral procedures suggesting a combination of masturbatory reconditioning and satiation

therapy: First, non-paraphilic sexual fantasies are developed by the therapist and the patients. Second, whenever patients experience paraphilic sexual fantasies during masturbation, they should switch to non-paraphilic sexual fantasies. Third, after having had an orgasm, patients are required to end masturbation and loudly verbalize every variation of their paraphilic sexual fantasies for 20–30 min. By this, it is intended to associate boredom, aversion, or exhaustion with the paraphilic fantasies in order to make them less attractive [23]. In addition, research suggests the importance of informing patients about the possibility of spontaneous remission and the fact that self-efficacy was shown to be important for motivational processes and treatment progress [15]. According to these research results, integration of paraphilic interests in patients' self-concept should not necessarily be a treatment goal in all patients and might even impede the patients' motivation for change [14–16].

Almost all research results on the effectiveness of treatment of paraphilic disorders occurred from studies that evaluated treatment programs for individuals who had committed sexual offenses. Meta-analyses have shown that behavioral therapy programs are more efficient in preventing new offenses compared to psychodynamic and other approaches (cf. [24]). Nevertheless, this interpretation of results has been criticized due to methodological issues (e.g., [25]). Importantly, an inclusion of individual sessions within group treatment programs for sexual offenders can enhance the treatment effect [26]. However, it is questionable whether the results of these studies on sexual offenders can be transferred to paraphilic patients who had not committed a sexual offense. Especially for paraphilic disorders usually holding no risk for others, such as sexual masochism or fetishism, the focus of treatment strategies is often on other aspects (e.g., prevention of self-damaging behavior, enhancing self-acceptance, disclosing unconscious motives, etc. [27]).

27.4.2 Pharmacotherapy

Selective serotonin reuptake inhibitors (SSRI, e.g., sertraline, fluoxetine, citalopram) are effective to reduce irritability, impulsivity, aggression, and antisocial behavior [13]. Furthermore, SSRIs have also been used to improve symptomatology in patients with paraphilias and sexual compulsive- or addictive-like behavior [13]. Thus, in cases of low risk for sexual violence in paraphilic patients, SSRIs may be used off-label in order to inhibit sexual activity or to reduce impulsiveness [13, 28]. However, there still is a lack of evidence using randomized controlled trials. Research results indicating that SSRIs reduce sexual fantasies, desire, masturbation, and sexual deviant behavior in paraphilic patients often relied on small samples and short follow-up periods; they were not placebo-controlled or double-blind and did not assess recidivism with sexual offenses as outcome variables.

Although research results do not suggest an increased testosterone level associated with sexual offending or paraphilic behavior [29], testosterone levels are considered to be associated with aggression, violent behavior, and maybe also with recidivism in sexual offending [30]. Therefore, in cases of moderate to high risk for sexual violence in paraphilic patients (i.e., pedophilic disorder and sexual sadism

disorder), the use of testosterone-lowering medications (TLM) e.g., medroxyprogesterone acetate, cyproterone acetate, and GnRH-agonists such as triptorelin and leuprolide, has to be discussed. Cyproterone can be administered orally and intramuscularly, while GnRH agonists have to be given subcutaneously or intramuscularly as a 1- or 3-month depot. This may have advantages when compliance is a problem. However, testosterone levels have to be monitored regularly because medication may be counteracted by using external testosterone applications. All TLM have a risk of severe side effects, such as thromboembolism, osteoporosis, diabetes, hypertension, adipositas, and liver dysfunctions (in CPA/MPA). This is why clinicians are recommended to evaluate costs and benefits and to cooperate with endocrinologists and osteologists before prescribing TLM [28].

27.5 Key Messages

- In the past, standardized diagnostic schemes, such as the DSM and the ICD, were sometimes used to pathologize and criminalize deviant sexual behaviors. The constant revision of diagnostic criteria for paraphilic disorders has led to classifications which take into account individuals' sexual well-being and only pathologizes the absence or limitation of consent in sexual relations.
- Treatment can be provided to individuals whose paraphilic interests are related to distress, personal harm, and/or risk of harm for others. Simultaneously, clinical and legal practitioners are instructed to differentiate between clinically and legally relevant cases and those individuals whose deviant sexual interests are not related to distress, personal harm, and/or risk of harm for others.
- To answer the question whether paraphilic interests and behavior can be assessed as pathological, clinicians should examine the interaction between sexuality and personality. Thus, for the process of diagnosing a paraphilic disorder, considering the diagnostic criteria for both paraphilic disorders and personality disorders is recommended.
- Given the constantly changing social conditions and resources, treatment strategies and risk assessment management need to be evaluated in terms of evidence-based practice.

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Gender Incongruence

28

Els Elaut and Gunter Heylens

28.1 Introduction

Transgender individuals have rapidly gained visibility in today's society: various media are presenting us with an increasingly nuanced insight in the lives of transgender people. Meanwhile, Western gender clinics are reporting rapidly growing numbers of individuals voicing a desire for gender-affirming treatment (GAT) [1]. The present chapter will focus on the definition of gender incongruence, guidelines for treatment and assessment, and the interaction with mental health. The main focus will be on adults.

28.1.1 Terminology

Many different terms have been used to describe people who experience a discrepancy between their assigned gender and experienced gender. For the convenience of the readers, terms and abbreviations used in this chapter are summarized in Tables 28.1 and 28.2.

The diagnosis "transsexualism" first appeared in 1975 in the International Classification of Diseases (ICD)-9 and subsequently in the DSM-III in 1980. In newer versions the term transsexualism was abandoned. DSM-5 describes gender dysphoria (GD) as the significant distress stemming from the incongruence between assigned gender (usually at birth, based on biological sex) and the experienced gender (the feeling of being male, female, or otherwise) [2]. More recently, ICD-11 has defined gender incongruence (GI) as a marked and persistent incongruence between an individual's experienced gender and the assigned sex, which often leads to a

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Table 28.1 Glossary

Sex	The biological aspect of gender, mostly based on primary and secondary sex characteristics
Gender	The psychosocial aspect of sex, subjective experience
Assigned gender	Apart from assigning a legal sex (in most countries male or female, based on a newborn's primary sex characteristics), children are also assigned a certain gender (role and identity), e.g., expectations on crying behavior, having a calm or more aggressive temper, showing an interest in stereotypical clothing, toys, hairstyle, etc.
Experienced gender	Or gender identity; the subjective experience of being male, female, genderqueer, or otherwise
Gender-affirming treatment	Range of treatments (hormonal, surgical, or otherwise) to obtain feminization or masculinization in individuals with gender dysphoria
Gender role	The behaviors that are within a certain culture and time-associated with being male or female and, hence, are expected from men and women
Transgender	Umbrella term, referring to a group of individuals who cross or transcend culturally defined categories of gender, including transsexual people, cross-dressers, drag queens and kings, non-binary people, and gender-variant people
Cisgender	Opposite of transgender, people whose gender identity matches the sex and gender assigned at birth
Trans woman/ AMAB	Individual assigned the male gender at birth identifies as a woman
Trans man/ AFAB	Individual assigned the female gender at birth identifies as a man
Non-binary	Umbrella term for all not exclusively male or female gender identities; also genderqueer, gender-fluid, etc.

Table 28.2 Abbreviations

AFAB	Assigned female at birth
AMAB	Assigned male at birth
ASD	Autism spectrum disorder
GAT	Gender-affirming treatment
GD	Gender dysphoria
GI	Gender incongruence
GIDYQ-AA	Gender Identity/Gender Dysphoria Questionnaire for Adolescents and Adults
GPPPD	Genital pelvic pain/penetration disorder
HADS	Hospital Anxiety and Depression Scale
HRT	Hormonal replacement therapy
MCDD	Multiple complex developmental disorder
MHP	Mental health professional
MINI	Mini International Neuropsychiatric Interview
NSSI	Non-suicidal self-injury
PDD NOS	Pervasive developmental disorder, not otherwise specified
SCID	Structured Clinical Interview for DSM
SOC	Standards of Care
UGDS	Utrecht Gender Dysphoria Scale

desire to "transition," in order to live and be accepted as a person of the experienced gender [3]. Both the scientific and the trans community currently prefer the terms "trans women" or "trans feminine individuals" for individuals assigned a male gender at birth (AMAB) but identifying with the female gender. Similarly, "trans men" or "trans male individuals" are individuals assigned a female gender at birth (AFAB) that identify on the male spectrum. Some, but not all, trans women and trans men voice a desire for GAT, which has long been shown to be effective for increasing the individual's quality of life [4].

DSM-5 has clearly stated that a spectrum vision on gender identity is necessary to comprehend the increasing gender diversity, moving beyond the binary idea that the world only consists of two categories: (trans) women and (trans) men. The clinician will encounter a series of terms used by individuals whose gender identity, gender role behavior, and gender expression do not match contemporary, local expectations and stereotypes within the binary society (e.g. genderqueer, gender-variant, gender-fluid, non-binary). This development has led to the use of the term "transgender," referring to a diverse group of individuals who cross culturally defined gender categories. Unfortunately, the growing awareness for gender variance is not yet accompanied by studies into non-binary gender identities and suitable GAT.

More recently, ICD-11 decided to no longer classify GI in the chapter of "mental and behavioral disorders," but to move it towards the category "conditions related to sexual health" [3]. During recent years, the WHO had been urged to remove this classification of GI as a mental disorder. One reason for the advocacy was the stigmatization that arises from designating any condition as a mental disorder. Such diagnosis can exacerbate problems for transgender individuals in accessing health services, especially services not considered as mental health services. Moreover, even in countries that recognize the need for transgender health care, where professionals with relevant expertise are available, insurance companies often exclude coverage for transgender health care. At the same time, the absence of a diagnosis could render access to transgender health care even more difficult. Therefore, a diagnosis was retained in ICD-11 [5].

28.1.2 Prevalence

The review of Arcelus and colleagues reports a general GI prevalence of 4.6 in 100,000 individuals, 6.8 for trans women and 2.6 for trans men [1]. As most studies are based on adults seen in specialized gender clinics, or on a count of legal sex changes, this might still be an underestimation of the true prevalence. Recently, a collaborative study between Canada and the Netherlands not only confirms a significant rise in GI individuals referred for specialized health care, it is also clear that there is a change in the sex ratio in the adolescent group. Aitken and colleagues report that, especially in the Netherlands, the sex ratio has shifted towards one favoring trans men [6].

28.2 Clinical Management of Gender Incongruence in Adolescents and Adults

Health care for individuals with GI should preferably be offered by an interdisciplinary team of health-care providers, potentially consisting of a broad variety of disciplines. Specialized gender clinics follow the guidelines as stipulated in the Standards of Care (SOC-7), published by the World Professional Association of Transgender Health (WPATH) [7].

Most individuals visiting a gender clinic arrive with a self-diagnosis. During the first clinical contacts with a mental health professional (MHP, mostly a psychiatrist and/or psychologist), a detailed clinical assessment should be performed to confirm the diagnosis of GI. A clear differential diagnosis from simply nonconforming to societal stereotypical gender role behavior must be made (e.g., "male" behavior in an individual AFAB does not necessarily point towards GI). Attention should be paid to the possible presence of body dysmorphic disorder or psychotic disorder (see Chaps. 15 and 31 for more information on these disorders). If psychiatric difficulties are present, those should be sufficiently stabilized before initiating medical interventions (for more on this, see Sect. 28.3). Within the SOC-7, the traditional gatekeeping function of the MHP is under debate. Further experiences with a more liberal approach (e.g., a model merely based on informed consent) will show what actually leads to the most optimal outcome. A qualified and appropriately trained MHP can write a referral letter to start hormone replacement therapy (HRT), for those individuals with a persistent GI, the capacity to make an informed decision, and having reached the age of majority in a given country. Before actually proceeding to medical interventions, the topic of fertility should always be addressed thoroughly, since GAT has irreversible effects on fertility options. For trans women, sperm cryopreservation is the simplest and most reliable method. Fertility options in trans men include embryo cryopreservation or oocyte cryopreservation.

Hormonal treatment (HT) the administration of exogenous endocrine agents to induce feminizing or masculinizing changes is a medically necessary intervention that both suppress endogenous hormone secretion and maintain sex hormone levels within the normal range for the person's desired gender. HT in trans women may consist of antiandrogens to cease masculinization and estrogens to achieve a more feminine appearance (breast development, softer skin, female fat distribution). HT in trans women does not alter voice pitch or bone structure. In trans men, HT may consist of progestins to interrupt menstrual bleeding and testosterone to obtain more masculine features (deepening of voice, increasing muscle mass and strength, beard and body hair growth, male pattern baldness). HT in trans men does not alter a short stature or broad hips.

Gender-affirming surgery in trans women may consist of breast augmentation, genital surgery (penectomy, orchiectomy, vaginoplasty, clitoroplasty, vulvoplasty, labiaplasty), feminizing facial surgery, and/or voice surgery. The SOC-7 recommends trans women to undergo HT for a minimum of 12 months prior to breast

augmentation, to maximize breast growth. For a vaginoplasty, it is recommended that the woman has lived in the female gender role for at least 12 months. In trans men, gender-affirming surgery may consist of mastectomy, hysterectomy/ovariectomy, vaginectomy, metoidioplasty, scrotoplasty, phalloplasty, and implantation of erection and/or testicular prostheses. A similar time frame is recommended: 12 months of HT prior to gonadectomy and an additional 12 months of living in the male gender role preceding genital surgery. For genital surgery, two MHP referrals are necessary according to the current version of the international Standards of Care [7]. However it is important to recognize that different national guidelines exist in different countries and are under fast development in many health-care systems. In some countries legal change of gender is not dependent on hormonal or surgical treatment, but can be obtained without being in contact with the health-care system.

GI does not equal the necessity of a "full" GAT, e.g., some trans men clearly identify as male, but do not wish to undergo a phalloplasty, mainly due to the current limitations of this surgery [8]. Other individuals might find it more important to remove obvious markers of their femininity, to obtain a more masculine gender expression, while maintaining a non-binary identity.

28.3 Gender Incongruence and Mental Health

28.3.1 Diagnostic Aspects: Gender Incongruence and Co-occurring Psychopathology

With regard to mental health and GI, two different aspects are important. First, clinicians should focus on the diagnosis of GI itself. As explained above, most individuals attending a gender clinic arrive with a self-diagnosis. Standardized measures can be helpful to capture multiple indicators of gender identity and GI. These measures include the Utrecht Gender Dysphoria Scale (UGDS) [9] and the Gender Identity/Gender Dysphoria Questionnaire for Adolescents and Adults (GIDYQ-AA) [10]. In general, patients who are seeking GAT but do not clearly meet criteria for GI may require more time and exploratory sessions. The same holds for those who exhibit marked exacerbations and remissions of dysphoria over time or patients with an onset of GI during, e.g., a psychotic episode or recent trauma [11]. GI must be differentiated from other diagnoses, for example, *transvestic disorder* (characterized by the association between cross-dressing and sexual excitement, leading to distress and/or impairment). Occasionally, transvestic disorder is accompanied by GI, and in many cases of late-onset GI in gynephilic AMAB, transvestic behavior is a precursor [2]. Individuals can also suffer from body dysmorphic disorder, obsessive-compulsive disorder, and psychotic disorders [12] (see Chaps. 15, 18, and 31 for more information on these disorders). Structured clinical interviews such as the MINI-PLUS or SCID can be helpful to refine diagnosis. Second, within the diagnostic assessment phase, attention must be paid to associated or co-occurring psychopathology. Surprisingly, for decades clinicians assumed that psychiatric

comorbidity was the rule rather than the exception. Even more, "transsexualism" was considered as a severe symptom of a psychiatric disorder such as schizophrenia. Aforementioned statements were merely based on experience rather than on evidence [12]. When associated psychopathology is likely, further diagnostic investigations can be important, in order to install appropriate treatment. This can be crucial since (severe) psychiatric comorbidity is a predictor of regret and a worse outcome after GAT [12, 13].

In the following paragraphs, the most common psychiatric co-occurrence will be discussed based on recent literature. Furthermore, two cases are highlighted showing the complexity of diagnostic assessment with which some persons with GI present.

A review on the co-occurrence of mental health problems and GI clearly shows that severe psychiatric problems as *schizophrenia* and *bipolar disorder* are not more prevalent in individuals with GI, compared to the general population [14]. If a diagnosis of psychotic disorder is present, GAT can still be considered, but patients must be sufficiently stabilized for a longer period. Case presentation 1 reports on the trajectory of an individual, AMAB, diagnosed with a psychotic disorder, substance abuse, and ADHD. This case illustrates the need for thorough psychiatric assessment and treatment and long-term follow-up of patients with complex psychiatric problems.

Case Report 1: GI and (Substance-Induced) Psychotic Disorder

Medical and psychiatric history: Assigned male at birth, the 35-year-old patient applies for GAT at the gender clinic. Psychiatric evaluation reveals substance abuse (mainly amphetamines and cannabis) with an onset during adolescence and further periodically through his adult life. There has been one hospital admission (duration of 5 months) specifically with regard to the substance abuse disorder but also four admissions due to a psychotic disorder, the first episode at the age of 24 and the most recent episode when 31. Each psychotic episode was related to excessive abuse of amphetamines. Furthermore, the patient was diagnosed with ADHD at the age of 18 and received treatment with methylphenidate for several years. As patient started abusing methylphenidate, a switch to atomoxetine was made, but patient experienced insufficient effect of this non-stimulant treatment for ADHD. At the age of 34, patient was prescribed long-acting methylphenidate. Since patient's second psychotic episode, he has been taking antipsychotics, both oral (risperidone 6 mg and more recently aripiprazole 15 mg) as long-acting injectable (paliperidone 50 mg) products.

Biographical information: Patient had one older brother that died in a car crash. He lives together with his parents and is on disability since his first psychotic episode. He finished secondary school at the age of 19 and received a degree in technical education. Afterwards, he worked for 5 years in several different companies, until his first psychotic episode.

Reason for encounter and course: The diagnostic assessment confirms the diagnosis of GI, with an onset in childhood. During adolescence, gender dysphoric feelings persist, but patient is unable to communicate these feelings or behave in a more feminine role due to his stay at a boarding school. At the age of 19, the patient desires to live in the female gender role, but he perceives his work and family as obstacles to actually do this. Due to the aforementioned psychiatric problems, there is an interval of more than 10 years before patient contacts the gender clinic. The patient has been informed about the longer duration of the diagnostic phase, due to his psychiatric history. Six months after the first visit, the patient becomes again psychotic as a result of amphetamine abuse. Upon his next visit 1 year later, he repeats his demand for GAT. HT is initiated 1 year afterwards. From that moment on, he stays abstinent with regard to all illicit drugs. Over a time course of 1.5 years, antipsychotic treatment is progressively diminished and finally stopped, and treatment for ADHD is continued. In the meanwhile, patient lives fully as a woman. She receives voice surgery, female feminization surgery, and facial laser treatment. One year after the initiation of HT, breast augmentation surgery and orchiectomy are performed, and another year later she undergoes a vaginoplasty. Upon her next visits, the first 1 week after surgery and 4 months later, she is very satisfied with the result. There are no psychotic symptoms, and patient is willing to engage in volunteer work. Although the patient has shown to be vulnerable for psychotic symptoms, probably due to the ADHD and subsequent amphetamine abuse, GAT was indicated and offered relief for the GI. Further psychiatric follow-up and social support are mandatory to ensure long-term stabilization.

The prevalence of affective disorders, on the other hand, is considered to be two to three times as high in people with GI as in the general population. AFAB are found to be more comparable to cisgender women than to cisgender men with regard to prevalence and nature of associated psychopathology [14]. Heylens and colleagues found a high prevalence of current (respectively, 27% and 17%) and lifetime (60% and 28%) *depression* and *anxiety* symptoms in individuals with GI, referred to four European gender clinics. No differences were found between ABAM and AFAB [15]. The clear difference between current and lifetime prevalence could indicate that affective disorders are even more common in GI individuals not on a pathway towards GAT [14]. In a large matched control study, GI individuals not on HT had a nearly fourfold increased risk of probable depression as measured with the Hospital Anxiety and Depression Scale (HADS). Older age, lower self-esteem, poorer interpersonal function, and less social support predicted depression [16].

A review by Marshall and colleagues (2016) revealed that GI individuals have a higher prevalence of non-suicidal self-injury (NSSI) and suicidality compared to the cisgender population [17]. Zucker and colleagues (2016) reported on the results

of 13 studies, showing that 1 in 3 adults with GI has experienced suicidal ideation, attempted *suicide*, or engaged in suicidal or non-suicidal self-harm [18].

With regard to *eating disorders*, a recent review suggested that body dissatisfaction is core to the distress individuals with GI experience and that this dissatisfaction may also put some individuals at risk of developing disordered eating [19].

Only few authors report on *substance-related disorders*, and results are inconsistent: in a large cross-sectional study, 16% of the applicants are diagnosed with a substance-related disorder current and lifetime (as measured with the MINI Plus) [15]. Using the same measurement, Gomez-Gil found a lifetime prevalence of alcohol abuse/dependence of 11.3% and lifetime prevalence of non-alcohol abuse/dependence of 30.2% [20]. Fisher and colleagues (2013) report a very low prevalence of substance-related disorders: 2.2% both for alcohol and non-alcohol abuse/dependence disorder (as measured with the SCID II) [21].

Results on the co-occurrence of *personality disorders* and GI are inconsistent with regard to prevalence and the nature of the personality disorder. The prevalence rate ranged from 4.3% to 81.4%. The type of personality disorder varied from predominantly cluster B (borderline) to predominantly cluster C (avoidant/dependent) [14]. Heylens and colleagues (2014) found a prevalence of 15% axis II disorders, and no differences were found between AMAB and AFAB [15].

Very recently, there is a growing interest in the relationship between GD and *autism spectrum disorder (ASD)*. Two reviews reporting on this topic show a higher prevalence rate of ASD, especially in children and adolescents. de Vries et al. report a prevalence of ASD in 7.8% of children and adolescents with GD or GID-NOS [22]. Information with regard to adults with GI is scarce, and various underlying hypotheses for the link between GI and ASD lack evidence [23, 24]. Furthermore, diagnostic tools for ASD often do not take gender-specific norms into account and are in general not validated for specific clinical groups such as individuals with GI. Specifically, the DSM 5 A-criterion for ASD stipulates deficits in social communication and social interaction that could very well be the consequence of suffering from GI. In other words, do we measure genuine autistic traits in GI individuals or symptoms related to impairment in social functioning [25]?

The second case presentation discusses an AFAB diagnosed with multiple complex developmental disorder (MCDD) at childhood and increasing gender dysphoric feelings during adolescence. The diagnostic confirmation of GI and consequent gender-affirming treatment not only diminished gender dysphoric feelings but also improved patient's emotional stability and social skills. Although the presence of a developmental disorder cannot be ruled out in this case, the course of the symptoms clearly points towards an overlap of symptoms between developmental disorders and GI.

Case Report 2: GI and Multiple Complex Developmental Disorder

Medical and psychiatric history: Assigned female at birth, the 19-year-old patient presented for the first time at the gender clinic. She was referred by her child and adolescent psychiatrist whom she consulted since the age of 9. At that age, she had been diagnosed with ADHD, predominantly inattentive presentation and pervasive developmental disorder-not otherwise specified

(PDD-NOS), categorized as multiple complex developmental disorder (MCDD). Intelligence testing showed a total IQ of 106, with a disharmonic profile (Verbal IQ, 94; Mathematical IQ, 120). Due to severe emotional instability and anger outbursts, and consequent dysfunction at the school, social, and family level, patient was admitted to a child and adolescent hospital twice (for a total period of 14 months), at the ages of 15 and 17. Medical history was negative. Patient never smoked and used neither drugs nor alcohol. At first presentation, patient took the following medication: aripiprazole 7.5 mg, lamotrigine 50 mg, and desogestrel 20 mg.

Biographical information: Patient has one brother that is 8 years younger and lives with the biological parents. Patient's father has been diagnosed with leukemia but is in full remission. She started regular primary school, but, due to the aforementioned psychiatric problems, was oriented towards special education. Considering the burden for the family and the need for a highly structured pedagogical environment, the patient moved from a nonresident towards a boarding school regime at a school for special education.

Reason for encounter and course: Based on the information of both patient and the parents, it becomes clear that the development of gender identity is atypical with regard to the natal sex/gender: from kindergarten on, there is an intense desire to participate in the stereotypical games and pastimes of boys, a rejection of urinating in a sitting position, a marked aversion towards feminine clothing, etc. At the age of 10, the patient communicates for the first time the strong belief to be a boy. Upon the negative reaction she receives, she decides not to talk about the gender issue anymore. At the age of 16, she becomes fully aware of her GI.

As her parents consider her gender dysphoric feelings as a part of the MCDD, it takes another 2 years before patient is referred for further diagnostic assessment. After four sessions, it becomes clear that patient suffers from GI, with onset in her early life. Although both parents initially react negatively and refuse to accept this diagnosis, they are willing to support their "daughter" and approve with the initiation of HT (testosterone undecanoate, 1 g every 3 months) 1 year after the initial visit. In the meanwhile, the patient is called by a male name, also by the teachers and the other pupils at school. He finishes special education upon the age of 20 and returns to vocational education for 1 year to obtain a degree. A few weeks afterwards, the patient is admitted to the psychiatric emergency unit after an attempted suicide. He quickly recovers and leaves the hospital after a few days. According to the patient, suicidality was provoked by stress due to the new school environment and difficulties experienced with his family.

After he gets his degree, the patient starts working in a car factory. He lives apart from his parents and is engaged in a relationship with a female partner. In the meantime, the patient is fully living in the male gender role and has a male physical appearance due to the masculinizing effects of the HT. Hysterectomy and ovariectomy are performed 1 year after the start of the HT, and a phalloplasty has been scheduled within 2 months.

Finally, *traumatic experiences* seem to be more prevalent in GI individuals: Colizzi and colleagues report on dissociative symptoms and found a prevalence of childhood trauma in 45.8% (mostly physical and emotional neglect and abuse). The question remains whether *dissociative experiences* (mostly regarding body uneasiness) are a part of a dissociative disorder or rather a genuine feature of GI [26]. Sexual abuse can specifically lead to a denial of one's gender identity, sometimes accompanied with a desire to live in the other gender role. The authors are aware of two AFAB who considered themselves gender dysphoric and underwent a mastectomy, but over time accepted their female identity and reapplied for breast augmentation. Both patients did not show regret about their initial decision and explained that breast removal was necessary to reduce the negative effects of the sexual trauma.

With regard to the question whether the overrepresentation of (some) psychiatric disorders is due to a common vulnerability for GI and mental health problems, or merely secondary to GI, the answer is unclear. Psychopathological symptoms seem to be closely related to the individual's long-standing and strongly felt identification with the other gender. Other explanations to account for the increased prevalence of associated psychopathology include the psychological consequences of gender incongruence and especially the effects of minority stress, a term that refers to the stressful consequences of the prejudice, discrimination, and victimization that persons with GI often experience. Meta-analytic reviews demonstrate that perceived prejudice and discrimination are associated with an increased prevalence of mental health problems in minority groups, although effect sizes are small to medium. Moreover, direction of effect cannot be conclusively determined (i.e., whether prejudice and discrimination lead to a greater likelihood of developing mental health problems, or whether mental health problems lead to a greater likelihood of experiencing—or perceiving— prejudice and discrimination). Perceived prejudice and discrimination have been found to be positively associated with general mental health symptoms, depression, suicidality, and self-harm [18].

28.3.2 Posttreatment Adjustment, Prognostic Factors, and Regret After Gender-Affirming Treatment

As GAT is, at least partially, an irreversible process, it is of major importance to look at outcome with regard to *feelings of GI*, *quality of life*, and *psychological functioning* posttreatment. A systematic review by Murad et al. showed that, after GAT, 80% of individuals diagnosed with GI reported significant improvement in gender dysphoric feelings and 78% reported significant improvement in psychological symptoms [13]. Also with regard to quality of life and sexual function, respectively, 80% and 72% reported an improvement. Dhejne et al. reported on 11 longitudinal studies investigating outcome of psychiatric disorders and psychopathology posttreatment and found that in the majority of the studies, scores on questionnaires measuring psychopathology and GI were similar to normative data [14]. On the other hand, a large population-based study also from Dhejne et al. found that after GAT, both AMAB and AFAB were 2.8 times more likely than controls to be

hospitalized for a psychiatric problem other than GI, even after adjustment for prior psychiatric comorbidity. Also, this study showed a, respectively, 4.9 times and 19.1 times greater likelihood to have made a suicide attempt or to have died from suicide [26]. Although this study examines a cohort of clients who underwent GAT between 1973 and 2013 and therefore partially reports on patients that were diagnosed and treated in an era when medical expertise and public awareness and tolerance with regard to GI were almost absent, it is recommended to ensure continuity of mental health care beyond transition. In general, longitudinal studies on the effects of GAT are methodologically weak, and follow-up duration is limited.

The question remains what part of the GAT is essential with regard to the improvement of psychological functioning: living in the preferred gender role, hormonal therapy, or sex reassignment surgery. Heylens et al. showed that after the initiation of HRT, the level of psychological stress as measured by the SCL-90 became comparable to a general population control. SRS did not further change the level of psychological distress [25].

Positive *prognostic factors* are onset in early life GI and homosexual tendencies [13], being transman [13, 14], and a younger age on assessment [14], although results are inconsistent. Pre-existing psychopathology [13] and poor results of sex reassignment surgeries [4] tend to have worse prognosis. Furthermore, inadequate social functioning indicated by periodical or full dependence on social assistance and poor support from the patient's family are considered to be negative predictive factors [27].

Regret after GAT defined as GI in the new gender role after GAT and the explicit wish to revert to his/her original gender role is estimated to occur in less than 1% in trans men and less than 1–1.5% in trans women [4]. Risk factors for regret are inadequate diagnosis of GI and/or major psychiatric comorbidity, absent or disappointing real life experience, and disappointing surgical results [4, 27]. De Cuypere and Vercruysse conclude that predominantly inadequate diagnosis of GI and major psychiatric comorbidity are indicators for regret [27]. Dhejne et al. report a prevalence of regret applications (applications for reversal of legal sex reassignment) of 2.2% [28]. Zucker et al. suggest that regret applications could be an underestimation of genuine regret of dissatisfaction after GAT since trans persons that die by means of suicide are not included in these regret applications [18].

28.4 Gender Dysphoria and Sexual Health

In the past, GI has been looked upon as a "hyposexual" state, implying that individuals with GI would not desire sexual activities. And while body dysphoria, regularly accompanied by severe genital aversion, is very contradictory to the positive nature of sexual pleasure, we now know this former idea is an oversimplification. Most individuals contacting a gender clinic (80%) have had sexual experiences with a partner. About half of this group also involved their genitals in sexual contact with a partner, although only a minority (10–15%) stated to have derived pleasure from it. Most people reported to have experience with masturbation [29]. Therefore, both

the health-care providers involved in GAT and the individuals considering it should have clear information on the potential sexual effects of this treatment, information that can help them counsel their patients before, during, and after GAT (for a more extensive review, please see [30]).

28.4.1 Sexual Desire and Arousal During Gender-Affirming Treatment

Sexual desire refers to fantasies and thoughts about, or desire towards, sexual activity. Sexual desire can be experienced "spontaneously," but mostly it is the result of the (conscious or unconscious) appraisal of a sexual stimulus (e.g., image, sound, memory, touch, or smell) (see Chap. 7 for more details on the neurophysiology of sexual response). Often, the effects of GAT on sexual desire and arousal are reduced to the potential effects of the used sex steroids (as decreasing due to antiandrogens and estrogens in trans women and increasing due to testosterone in trans men). However, other factors such as improved self-esteem, more comfort with the new genitalia, and being able to allow more sexual exploration without being confronted with GI can often result in improved sexual effects. Several studies have looked into sexual desire throughout GAT. When asked about their experience after HT and genital surgery, the majority of trans women (70%) report a decrease in sexual desire, while a minority (10%) report an increase or no effect (20%), compared to the situation before treatment. In trans men, the majority (70%) report an increase, but a minority report a decrease (10%) or no effect (20%) [31]. Most trans women and men welcome these changes, as they value sexual functioning to approach the "typical" functioning of their experienced gender. A subgroup of trans women (one in five) report distress, due to decreased sexual desire [32]. Future studies should look into the psychological processes that are of importance when adapting to a sexual desire that is now less testosterone-driven. Both distress about decreased (5%) and too much sexual desire (3%) are much less of a concern in trans men [31]. It seems as if GAT almost always demands a sexual (re)development by the individual, especially within a relationship.

In line with the biopsychosocial view on sexual health, care providers should look beyond the stereotypical sex steroid effects and should always take relevant psychosocial factors into consideration when presented with sexual complaints. This means that the sexual health-care provider needs to approach the sexual problems more holistically, as with all other clients, and not merely in the view of GI. An illustration of this can be found in Case Report 3. Moreover, studying individuals in the course of treatment has also shown that the relation between sex steroids and sexual arousal is not always as straightforward as assumed. An Italian study showed that nocturnal penile tumescence in trans women was testosterone-dependent: trans women whose testosterone levels were higher experienced more frequent erectile events during the night. However, erections that were induced by deliberately sought out sexual stimuli were not correlated with testosterone levels. These findings are in line with earlier studies reporting on the occurrence of sexually induced erections in

castrated patients [33]. Such findings support the need for a biopsychosocial approach on the sexual effects of GAT.

Finally, it should be included in psycho-education that trans women with a skin-lined vagina always need a lubricant to be able to allow pain-free penetration. Trans men are not able to obtain an erection spontaneously, even after placement of an erection prosthesis.

Case Report 3: Trans Woman with Erectile Dysfunction upon the Start of HRT

Background: A 60-year-old trans woman presents at our center. She has been married for 30 years and has 4 children. The GI can be confirmed quickly and has been present for several decades. The desire to transition was often discussed with the wife, who found it difficult to live with a female partner. Upon first clinical contact, the divorce had been final for 1 year. During the last year, a progressive change to the female gender role took place. Relationships with two of the children remain difficult, due to ambiguous messages about the transition of the ex-partner in the past, among other things. Upon contact with the children, a more neutral gender expression is chosen out of consideration for their feelings. The patient has had a new female partner for 4 years. She was informed of the GI since the start of their relationship ("I want to become a woman, wearing female clothes are important to me"). One year in the relationship, the patient retires from her job, making the need for a full social transition more tangible. Further changes in the female gender expression lead to a crisis in the current relationship: the partner identifies as heterosexual and states that she finds it difficult to fall in love with a woman. The partners separate for 18 months. Upon first clinical contact at our center, the partners have reunited and are seeing a couple's therapist to work through this process, containing elements of grieving and adaptation. Although they both cope with the situation quite constructively, the patient sometimes shows passive-aggressive tendencies, stemming from feelings of guilt ("I can't give her what she needs. She will leave me if I continue the transition."). Both partners sometimes avoid conflict, as they both very much want to spare each other's feelings.

Sexual complaints: After exploring the request for treatment with both partners, it is decided to start HT (cyproterone acetate 50 mg, once daily, and estrogen valerate 2 mg, twice daily). The social transition progresses well. Soon after the start of HT, nocturnal (and morning) erections disappear, but during sexual activity, an erection is still present. The patient does avoid penetration and ejaculation, as she finds those acts are highly associated with "male" sexual behavior and confront her with the GI. The partner reports to sometimes feeling disgust towards the increasing feminization of her partner's body, e.g., breast formation. Contrary to the past, the partner feels that this time she is not losing touch with her own needs and desires and can move beyond this initial emotion. After 7 months of HT, the patient reports feeling

tired and distressed about a decreased sexual desire. The endocrinologist halves the antiandrogen medication upon request of the patient; also, a switch was made from estrogen valerate to estradiol gel 3 mg (two pumps, twice daily). However, while the energy returns, the complaints of decreased sexual desire persist. Also, obtaining an erection is becoming more and more difficult. After further exploration, the partners acknowledge that sexual activity had always very much been focused on penis-in-vagina penetration. The therapist notices how attention often moves away from the available sexual stimuli during sexual activity and thoughts about guilt are taking up more attention and, hence, decrease the sexual arousal.

Treatment: Consultations with a psychologist-sexologist are alternately individual with the patient (mostly focused on general aspects of the transition) and with the couple, more focused on the mutual coping in the (sexual) relationship. To stimulate a new sexual scenario, the couple introduces a vibrator into their sexual activities. This device helps to change the focus from "male," penetrative sexual movements, new sexual behaviors that bring sexual pleasure for both partners. Apart from this change in sexual scenario, the couple also discusses the meaning of their sexuality in a new manner. The partner states that, initially, she was worried that the decreasing erections meant that she was no longer seen as an attractive partner or even that her partner no longer loved her. She realizes that was her reason to keep directing the attention towards penetrative behavior: to avoid seeing her fears confirmed. The patient—while initially attributing the decreased desire and erections as purely hormonal effects—gains insight in her negative thoughts: while she felt distressed about continuing "male," penetrative sexual behavior, she mostly felt very guilty and anxious about not satisfying her partner. Once both partners are able to reassure each other that this new sexual scenario (changing focus from penetrative sex to other forms of mutually stimulating each other), the patient no longer focuses on feelings of guilt and anxiety, and the partner no longer focuses on penetrative behavior. This increased attention of both to pleasurable sexual stimuli increases the frequency of erections during sexual activity, although erections did not again acquire the same importance as before. HT is continued (cyproterone acetate 25 mg, once daily, and estradiol gel two pumps daily) until today. A vaginoplasty is planned within few months.

28.4.2 Orgasm and Sexual Pain During Gender-Affirming Treatment

One of the most researched topics in sexual functioning after GAT is whether trans women and men can achieve orgasm, sometimes referred to as "orgasm capacity." The percentages of orgasm capacity in trans women vary greatly,

but—similar to cisgender women—orgasm occurs more frequently during masturbation than during sexual intercourse. Studies in this area are hampered by the observation that some individuals experience their first sexual relationship with a partner, or only start their sexual self-discovery, after GAT [30]. It is further likely that the meaning and experience of sexuality itself is also fundamentally different after treatment. Before GAT, sex is sometimes only practiced to keep a partner happy or as a way to relieve tension. After genital surgery, trans women often present with a more active and exploring attitude. Hence, the percentages of "orgasm capacity" are difficult to interpret: has the woman already acquired sufficient knowledge on the functionality of her clitoris and vulva, has she developed sufficient sexual skills and started self-exploration? In any case, when assessed without this context, these percentages should not merely be interpreted as a measure of surgical success. We should not forget that also in the general population, an "orgasm gap" exists between cisgender women and men: especially during partnered sex, women experience orgasm less often [34]. While this is often attributed to different anatomy, this is just as much about a lack of knowledge concerning the most pleasurable female body parts (the clitoris being the crucial organ, not the vagina), both in men and women. While studies on orgasm in trans men are scarce, the number appears to be more clear and is situated around 78% after sexual intercourse and reaches 90% after masturbation. As in trans women, the direction of change is not always clear. While sexual experience after GAT in trans men might feel less dysphoric, the procedures of phalloplasty and erection devices often cause sexual worry and pain.

In both trans women and men, pain during sexual activity after GAT can be an issue. In trans women, the skin lining of the vagina (instead of mucosa) not only provides less lubrication (making the use of lubricant necessary during penetrative sex) but also less elasticity than a mucosal vagina would. Both aspects sometimes lead trans women to fear sexual pain and damage during sexual intercourse, which can give rise to a pattern of avoidance (for an illustration, see Case Report 4). After a vaginoplasty, careful and frequent dilation is necessary to maintain the newly created cavity. Dilation should preferably take place in relaxed circumstances, preventing the act of dilation to become associated with pain, fear, and hypertension in the pelvic musculature. Trans men without an erection prosthesis usually do not experience sexual pain, while this number increases after the insertion of an erection device. While the decision to have an erection device inserted is always a personal decision of the patient, it must be mentioned that it can also be a great potential source of sexual worry and distress. Therefore, trans men should be made aware that while penetrative sex (the most important reason for choosing such a device) is presented by media as an important part of the sexual scenario, sex can be much more then penetration. Psycho-education on broadening the sexual script with the partner and openly discussing potential advantages and disadvantages of an erection prosthesis should routinely be offered as good clinical practice [27].

Case Report 4: GPPPD in Trans Woman After Vaginoplasty

Background: A 37-year-old trans woman presents at our center. She has been on HT for 14 years and had a vaginoplasty at our hospital 13 years earlier. She has quite a low self-esteem, can act very insecure, and is not very skilled in asking for what she needs. Coming back to our team after so many years "feels as a failure." It is clear she feels distressed and had to overcome some obstacles to consult with the clinic again. The patient is single and is experiencing sexual complaints; she wishes to address these complaints before starting a new relationship.

Sexual complaints: Dilatation was stopped quite soon after the vaginoplasty. The patient experiences severe pain upon touching her clitoris, which results in avoiding further touching, sexual self-exploration, and dating behavior. She does not experience pain during penile penetration. Also, the patient avoids looking at her vulva and states that she avoids taking up dilation again out of fear of damaging her vagina. She has not experienced an orgasm since having surgery and is distressed by this. Her local psychologist referred her for a gynecological checkup. This gynecologist from a local hospital prescribed estriol ovules for vaginal atrophy and referred the patient for a checkup by her treating surgeon. During this surgical consult, the vulva and vaginal depth were inspected, and the surgeon confirmed all had healed well and no obvious problems were present. The advice was given to again take up dilation. The woman was referred to a psychologist-sexologist to assess the situation more thoroughly. After further exploration, a diagnosis of genito-pelvic pain penetration disorder (GPPPD, DSM-5, code 302.76), secondary to the vaginoplasty, was given.

Treatment: Upon first clinical contact and after extensive exploration, the patient receives psycho-education on dilation after a vaginoplasty, the functioning of the pelvic floor muscles, the possibility of a negative circle of sexual pain, and the role of anxiety and avoidance therein. After increasing her treatment motivation by increasing her insights to her complaints, a treatment plan consisting of three aspects is offered. First, an appointment is organized with a pelvic floor therapist, who has extensive experience in treating trans women. The rationale is to break the avoidance behavior in a safe environment, parallel to continued sex therapy. Second, considering she no longer possesses a suitable dilation device, it is advised to buy a new dilation set. This is prescribed by the treating plastic surgeon and can be picked up from the hospital pharmacy. After taking the first steps with the pelvic floor therapist, the patient can this way take up dilation again more frequently at home. Third, after discussing the sexual complaints with the gynecologist of the gender team, he prescribes a gabapentin ointment, often used in the treatment of provoked vulvo- and clitoridynia. The hope is that using this ointment regularly will start desensitization of the clitoris, an area that is currently being avoided completely. The context of this ointment being used often in the context of other sexual pain complaints will further stop the anxious-avoidant behavior. Considering a recent surgical consult was reassuring, no further physical exams were deemed necessary.

During a second appointment, the patient tells that she has met a new partner. After chatting for a while online, they met for a date. This date led—quite unexpectedly for the patient—to sex, in which she states that penetration had not been possible: she felt her pelvic floor muscles tighten. Upon observation of this tightening of her muscles, she refrained from further penetrative behavior and masturbated her date. The occurrence of a vaginistic response has obviously caused distress, and the patient states that she is thinking about seeing a surgeon to have this surgically treated. She had not yet seen the pelvic floor therapist, for which she is more motivated after linking the recent experience to her anxious-avoidant behavior. After this second session, she also starts using the ointment. During a third appointment, she states she has stopped using the ointment, as the clitoral pain has fully disappeared. Also, she had used a small hand mirror to look at her vulva. The avoidant behavior had clearly decreased, and she had experienced several orgasms. This sexual awakening also showed itself in the return of erotic dreams and fantasies. While she stated she will always remain a bit anxious in nature, she wanted to further her sexual needs and desires and she was happy to be pain-free.

28.5 Key Messages

- Individuals with gender incongruence or gender dysphoria are becoming more visible in today's society. Therefore, clinicians should become informed on the basics of gender-affirming treatments and the sexual health of individuals with GI.
- Changes in sexual desire or arousal after GAT should always be looked upon from a broader biopsychosocial perspective, and not as something only resulting from changed sex steroid levels.
- Moving away from stereotypical sexual scenarios (depicting men as dominant, penetrating individuals and women in a passive, receiving role) and discussing alternative possibilities to experience sexual pleasure together can often reduce sexual complaints in trans individuals and their partners.
- Despite the limitations of existing treatment, a satisfying sexual life after GAT is often possible.
- The former paradigm of GI being a part of a psychiatric disorder must be abandoned, although prevalence of mostly affective problems is much higher in persons with GI compared to the general population.
- Adequate diagnosis of GI and co-occurring mental health problems is of major importance to improve outcome after GAT and reduce regret applications.
- When mental health problems are properly treated/taken care of and patients are sufficiently stabilized, GAT has proven to be the best option with regard to feelings of GI and psychological well-being.
- Further research is needed to assess the long-term effects of GAT on psychosocial functioning. Meanwhile, it is recommended to ensure continuity of mental health care beyond transition.

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Late-Life Sexuality

29

Woet L. Gianotten

29.1 Introduction

The world is aging. In Europe and United Nations' more developed regions, close to 25% of the population is aged 60 years or over. The fastest-growing group in nearly all countries are the "oldest olds." This 80+ age group includes 5% of the population. The rapid aging of the world population creates new challenges for psychiatry, with the development of the subspecialty of geriatric psychiatry that focuses on age-related mental disorders and various stages of cognitive impairment. A sideline in this process is the attention for healthy mental aging.

Whereas society and the majority of health-care professionals tend to close their eyes to the sexuality of the aged, many seniors continue to be sexually active. Gradually, we begin to understand the importance of intimate contact and sexual expression for physical and mental health for the aged. At the same time, aging is accompanied by various changes that influence sexuality. There are changes in sexual physiology itself. Then there is an increase in chronic diseases and medical interventions with their numerous sexual side effects. Finally, there are changes in relationships with far-reaching sexual consequences.

For that area, we tend to use the name gerontosexology.

An important question to ask is: What do we call aged? For patients, "aged" seems to depend relatively much on own ideas about age. For professionals, it seems to depend more on a mixture of own life experience, medical knowledge, and surrounding cultural ideas.

This chapter primarily tries to focus on the 70–90-year age group. However, because of lacking data, we will use also data of younger senior groups.

In the context of this book, the chapter obviously will offer only limited information. Especially the professionals from geriatric psychiatry certainly need extra knowledge and expertise on sexuality and sexual health in the aged [1].

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This chapter will deal with those various aspects of sexuality and intimacy in the aged population and will address in some detail the next areas:

- Misconceptions, trends, and age versus generation
- Sexual aspects of the physiology of aging
- Sexual disturbances in the elderly
- Chronic illnesses disturbing sexuality
- Maintaining sexual function
- Changes in relationships that influence sexuality and intimacy
- Mental health issues that affect sexual activity in the elderly
- Some advice, recommendations, and things to be aware of

29.2 Misconceptions, Trends, and Age versus Generation

In many societies, the topic of "sexuality in the aged" has been surrounded by taboos and misconceptions. That partly appears to be rooted in the idea that parents and especially grandparents "have no sex," which of course is not a reliable reference for health-care professionals (HCPs). It is not unlikely that by the combination of career, children, and night shifts, many young HCPs have less frequent and less satisfying sex than their parents.

Another misconception is that when seniors have sex, it will be always soft and gentle. However, they too can be passionate, and even at age 80+, they can fall in love.

Western society tends to overrate the importance of young female beauty and appearance and accordingly considers the aged body as no more attractive. Many young women, insecure with their body image, are convinced not to comply with that standard, causing disruption of their sexual identity and satisfaction. For many aging women, however, that doesn't seem to be a substantial issue [2]. Many of the aged men and women apparently place increasingly less importance on appearance and more on body functioning and health. Besides it could be that for many females (and their male partners), the aging female curves resemble more the body ideals of their youth.

Another aspect of sexual aging is that gradually both the meaning of sexuality and the importance of "perfection" change. One could roughly state that whereas with younger ages sexual performance scores high, sexual intimacy becomes more important when growing older. At younger ages, that process of change over time favors males (with their relatively bigger focus on function), whereas at higher age, it will favor women (with their relatively bigger focus on intimacy). Male function, being rather vulnerable at higher age, can explain the fact that the reporting of sexual health concerns tends to increase with age in men, whereas the opposite is seen in women [3].

Sexual health is not just the absence of sexual problems, but more relevant is the absence of sexually related personal distress. In the United States, the prevalence of any *distressing* sexual problem was highest in women aged 45–64 years (14.8%), intermediate in women aged 18–44 years (10.8%), and lowest in women 65 years or older (8.9%), despite the fact that the older women had a higher prevalence of sexual problems [4].

Three larger-scale studies have examined sexual activity in the elderly as displayed in Tables 29.1, 29.2 and 29.3, all showing that elderly people continue to be sexually active. The 2007 Study of Sexuality and Health Among Older Adults in the United States showed that although sexual activity declines with aging, a substantial amount of 65+ seniors continue being engaged in vaginal intercourse, oral sex, and masturbation, even in the eighth and ninth decades of life, with men being more active than women and women less likely than men to have a spousal or other intimate relationship (Table 29.1) [5].

Table 29.1 The 2007 study of sexuality and health among older adults in the United States

Reported sexual experiences for the previous year	Men 65–74 (%)	Men 75–85 (%)	Women 65–74 (%)	Women 75–85 (%)
Sex with a partner in previous yr	67.0	38.5	39.5	16.7
Sex with a partner ≥2–3×/month	43.8	20.9	25.8	9.0
Oral sex	32.1	10.9	18.4	5.8
Masturbation	53.0	27.9	21.9	16.4

Data of the 1.985 respondents above age 65 [5]

Table 29.2 The 2014 English Longitudinal Study of Aging in community-dwelling persons

Reported sexual experiences for the previous year	Men 60–69 (%)	Men 70–79 (%)	Men 80–90+ (%)	Women 60–69 (%)	Women 70–79 (%)	Women 80–90+ (%)
Any sexual activity in previous yr	84.5	59.3	31.1	59.9	34.3	14.2
Thinking about sex frequently	84.7	65.7	38.7	48.4	25.4	10.4
Sexual intercourse ≥2×/month	37.3	19.5	5.9	26.9	12.2	4.5
Masturbation ≥2×/month	34.7	18.0	5.2	7.8	3.2	1.0

Data of the 4015 respondents in the 60–90+ age group [3]

Table 29.3 The 2016 study on sexual activity and satisfaction in four European countries (Norway, Denmark, Belgium, and Portugal) with 3814 respondents in the 60–75-year age group [6]

In previous month	Men Norway (%)	Men Denmark (%)	Men Belgium (%)	Men Portugal (%)	Women Norway (%)	Women Denmark (%)	Women Belgium (%)	Women Portugal (%)
No intercourse	35.7	35.7	35.1	19.7	46.4	43.9	59.6	36.8
No masturbation	34.7	46.6	42.7	57.9	59.9	69.3	63.6	73.3
Intercourse ≥2×/month	50.7	47.9	45.8	67.0	41.0	43.1	31.3	44.1
Masturbation ≥2×/month	49.3	40.6	41.0	31.9	21.5	16.9	21.1	13.3
(Completely) satisfied	49.4	55.0	45.0	60.6	50.8	54.8	40.7	45.8

The 2014 English Longitudinal Study of Aging in community-dwelling persons found that although the levels of sexual activity declined with increasing age, it became clear that a sizable minority of men and women remain sexually active until the eighth and ninth decades of life [3].

Finally, a 2016 study on sexual activity and sexual satisfaction in four European countries (Norway, Denmark, Belgium, and Portugal) with 3814 respondents in the 60–75-year age group confirmed sexual activity among elderly people but also drew attention to the impact of culture on sexual behavior [6].

There appears to be a North–South European difference in sexual behaviors with changing gender roles, differences in gender equality, and restrictions particularly on women's sexuality as possible explanations.

The Nordic countries tend more toward gender- and age-related equality in which the sexuality of women and adolescents is more accepted than in most other Western countries. Frequently, this is called the "liberal perspective". In Southern Europe, men tend to begin their sexual life at an earlier age than women, and their behavior remains more influenced by patriarchal traditions. In the gender roles of this more "traditional context", masculinity is opposing femininity, with initiation, dominance, assertiveness, and independence belonging to masculinity and sexual passivity, submissiveness, and dependency belonging to femininity.

Compared to men in Norway, more Portuguese men have intercourse (more frequently), and fewer Portuguese men masturbate (and less frequently). Assuming that for the far majority of men intercourse is valued higher than masturbation, those percentages will be part of the explanation why more Portuguese men are "completely satisfied" than Norwegian men. Compared to women in Norway, more Portuguese women have intercourse (more frequently), and fewer Portuguese women masturbate (and less frequently). Assuming that for the majority of women intercourse isn't valued very high, those percentages will be part of the explanation why more Norwegian women are "completely satisfied" than Portuguese women.

However, these are just assumptions that should be confirmed by a more profound explorative research and may also be influenced by demographic differences as more Norwegian men and women were singles. In spite of aging and all its potential sexual troubles, 40–60% of participants reported that they were sexually satisfied or completely satisfied across all four countries.

A substantial part of the cultural influence is based on (traditional) religion [6]. Where sexual activity was only allowed (or even obliged) in order to conceive, the pleasure aspect didn't develop or easily disappeared. Under such conditions, the menopause frequently meant the end of sex life (see Chap. 2 for more information on cultural influences on sexuality).

With less religion, less poverty, and better health, societies can allow more individual development, processes that are influenced by female emancipation, better contraception, and the modern media. The consequences of those generation changes could clearly be seen in a Swedish research study.

They compared the sexuality of different senior cohorts. Every 10 years, a new group of 70-year-old seniors was investigated [7, 8]. Figure 29.1 shows the differences between the 1970 and 2000 cohorts (born in 1900 and 1930, respectively).

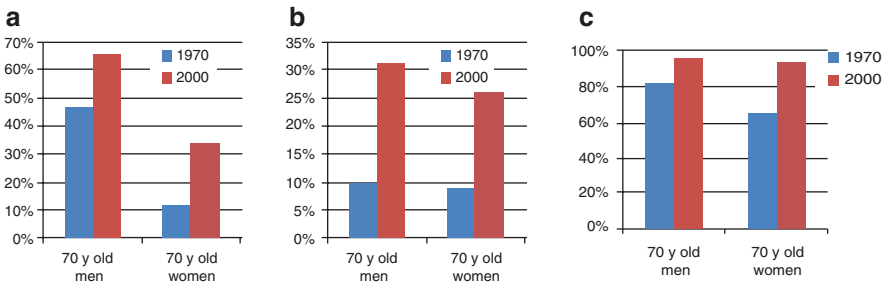

Fig. 29.1 Changes in sexual behavior and attitude in two cohorts of 70-year-old Swedes with a 30-year generation difference [7, 8]. (**a**) Intercourse in the last year. (**b**) Intercourse ≥1×/week (for the sexually active seniors). (**c**) Positive attitude to sexuality in later life

Table 29.4 The use of the Internet and social media for sex and love in a group of 3814 respondents (aged 60–75 years) in Norway, Denmark, Belgium, and Portugal [9]

	Check dating sites		Read or watch porn	
Age (years)	Male (%)	Female (%)	Male (%)	Female (%)
60–64	6.3	3.5	39.7	3.9
65–69	3.7	4.8	31.4	3.1
70–75	3.3	3.8	26.2	4.3

In Figure 29.1 (a) shows "intercourse in the past year"; (b) shows "≥1×/week intercourse (in those sexually active seniors)"; and (c) answers the question on "a positive attitude to sexuality in later life."

It is unlikely to find an all-encompassing factor to explain these massive changes. The Swedish researchers offered the following as potential factors in later birth cohorts: higher educational levels; better socioeconomic status; more acceptance of the factors cohabiting, living apart, and divorce; better general physical health; changes in legislation (on sexuality education and contraceptives); and finally the sexual revolution of the 1960s.

Of course such tremendous generational changes will not happen everywhere (and maybe not in that speed). But even in more traditional societies, health-care professionals have to be prepared for an increasingly diverse and growing group of sexually active seniors.

A relatively new scene in sexual reality is the Internet with its wide range of possibilities for sexual contact and easy access to erotica and pornography. This is also influencing the more aged people as was shown by additional data from the research in the abovementioned four West European countries [9]. Whereas in younger age groups women seem to consume less porn than men (although not much less), aged females consume far less porn than aged males (Table 29.4).

Nonheterosexual orientation deserves some attention here. When aging gay, lesbian, and bisexual men and women have to switch to homes for the aged or residential care facilities, many feel forced to get back in the closet because of the conservative and strongly heteronormative attitude of many institutions [10].

Aged gay men and lesbians tend to experience greater rates of loneliness and their own set of mental health problems. Many aged lesbians experience much sadness when looking at the younger lesbian generation with their freedom, same-sex marriage, and accepted lesbian motherhood. Many aged gay men experience much sadness because they have lost so many friends and lovers during the AIDS epidemic [10].

29.3 Sexual Aspects of the Physiology of Aging

29.3.1 Women

Aging in women cannot be discussed without paying attention to menopause. Menopause represents three important changes, namely, (1) the end of fertility, (2) the transition from monthly hormonal changes to a life without cycles, and (3) the start of a life with much lower estrogen levels.

The transition period can be accompanied by a wide variety of complaints like hot flashes, poor sleep, irregular blood loss, and irritability. Ranging from nearly none to very much, these complaints can start or aggravate disturbances of sexuality and intimacy. In the long run, these complaints will disappear, because they belong to the transition period. Sexual complaints include decreased sexual desire, lubrication problems, and changes in orgasm.

Because the ovaries have stopped producing estrogen hormones at the end of this transition period, menopause is also the beginning of a life with nearly no estrogen. That is different for androgens (including testosterone). Whereas the production of 50% of androgen hormones in the ovaries comes to a stop, the adrenal glands continue to produce androgens, and even at high age, they are responsible for female sexual desire.

In the physiology of aging, estrogen deprivation is a gradual process. Osteoporosis, skin changes, and atrophy of the vagina and vulva do not always occur, but when they do, it usually takes years.

In women of higher age, the following changes can be found:

- Greater atrophy of the vagina with higher pH and more sensitivity for vaginal infections.
- The vagina can become shorter with less elasticity and thinner mucous membranes.
- The genital labia become thinner and the vulvar entrance can be narrowed by lower elasticity.
- More time and more stimulation are needed to reach the same amount of lubrication,
- Less subcutaneous fat in the external genitalia, causing an increase in postcoital cystitis.
- Orgasm is shorter in duration with fewer contractions. However, the potency to orgasm doesn't seem to diminish.

- Less pubic hair and a decrease in female scent.
- Whereas in a subpopulation of women lower androgen levels can cause decreased sexual desire, in others, the absence of estrogen causes lower SHBG levels resulting in higher bioavailable testosterone levels that can lead to more sexual desire (and some hirsutism).
- The skin can lose elasticity and gloss with increased dryness.
- The muscles have greater stiffness and lower elasticity.
- After menopause, there is a redistribution of adipose tissue to the visceral depots leading to a change in body shape [11].

An Australian group looked into the various biopsychosocial factors responsible for sexual changes. For low sexual desire, relationship factors proved to be more important than age or menopause, whereas for diminished arousal and orgasm capacity physiological and psychological factors were more important than relationship factors. Sexual distress was found to be associated with both psychological and relationship factors [12].

All these postmenopausal changes create new conditions (and new challenges) for sexual activity, depending on the woman's coping mechanism and her adaptations in lifestyle.

29.3.2 Men

Since men have no clear transition phase, their aging changes are not as spectacular and brusque as in menopause. They have a more gradual lowering of endocrine levels and physical decline. From around age of 40 years, there is an average total T (testosterone) decline of 1% annually (or 0.04 nmol/L). This T-level decline occurs much faster by unhealthy lifestyle factors (dietary habits, low physical activity, smoking, etc.). The vast majority of aging men end up somewhere in the wide range between slightly lower T levels and real hypogonadism [13]. The so-called "partial androgen deficiency of aging males" (PADAM) is correlated with decreased muscle mass and muscle power, decreased sense of well-being, increased abdominal fat, changed insulin resistance, and a worse lipid profile. Lower T is also accompanied by more depressive symptoms, lack of motivation and energy, lower psychological vitality, anxiety, irritability, insomnia, difficulty in concentrating, memory impairment, decreased dominance, and faster onset of cognitive decline [14]. The sexual consequences of low T are less sexual desire, lower arousability, fewer spontaneous erections, and fewer sex-related erections. Orgasm capacity appears not influenced by T level.

The physiologic male aging is accompanied by:

- A decline in β-adrenergic and cholinergic receptors and an increase in α-adrenergic activity. That interferes with the penile smooth muscle relaxation and causes reduced erectile capacity.
- The elastic fibers in the cavernous body are replaced by connective tissue, causing less penile expansibility. So, erections will be less rigid.

- There is a decrease in tactile sensitivity of the penis, which is even more pronounced during increasing tumescence [15]. That makes erections more dependent on adequate direct penoscrotal stimulation, which can be difficult for couples who stick to genital sex without touching the penis.
- Reaching maximum erection tends to take more time.
- Gradually it takes more time to reach orgasm. So there will be fewer premature ejaculation troubles.
- Orgasm is shorter in duration with fewer contractions, less semen, and less expulsion force.
- After orgasm, there is faster detumescence, and the refractory period can be extended to as long as 24 h [16] (see Chap. 7 for more information on sexual physiology).

29.4 Sexual Disturbances in the Elderly

From many different studies, it is clear that sexual disturbances are in general associated with poor health and it appears that this is more so for men than for women. Persons in good physical health are more likely to have an intimate relationship and are more likely to be sexually active with a partner.

Three different relevant elements appear to play a role here:

1. More sexual expression appears to promote physical health (see Chap. 6 for more information).
2. Higher age is accompanied by physiologic changes and especially more chronic diseases and interventions that can impair sexual function.
3. Apparently less bothered by sexual dysfunctions, many elderly people continue to be sexually active (contrary to what is seen in younger groups).

In an American study, it was found that half of the men and women reported having at least one bothersome problem and almost a third reported having at least two bothersome sexual problems (Table 29.5) [5]. Looking specifically at the

Table 29.5 Reported sexual problems in sexually active Americans in the last year [5]

Sexual problem	Men 65–74 (%)	Men 75–85 (%)	Women 65–74 (%)	Women 75–85 (%)
Lack of sexual interest	28.5	24.2	38.4	49.3
Trouble with erection or lubrication	44.6	43.5	43.2	43.6
Climaxing too quickly	28.1	21.3		
Inability to climax	22.7	33.2	32.8	38.2
Pain during intercourse	3.2	1.0	18.6	11.8
Sex not pleasurable	7.0	5.1	22.0	24.9
Anxiety about performance	28.9	29.3	12.5	9.9
Avoiding sex because of sexual problems	30.1	25.7	30.5	22.7

Table 29.6 Reported sexual difficulties in 4015 community-dwelling persons from the English longitudinal study of aging [3]

Reported sexual difficulties	Men 60–69 (%)	Men 70–79 (%)	Men 80–90+ (%)	Women 60–69 (%)	Women 70–79 (%)	Women 80–90+ (%)
Erectile difficulties\difficulty becoming aroused	35.5	66.1	88.3	37.6	51.0	34.6
Difficulty achieving orgasm (in last month sex activity)	14.9	33.2	52.2	30.6	32.1	34.1
Dry vagina (in last month sexual activity)				25.0	30.3	12.6
Pain during/after sexual activity (in last month)				11.6	14.5	11.0

connections with hypertension, diabetes, and arthritis, the striking facts were decreased sexual activity in women with diabetes, more erectile disturbances, and decreased masturbation both in men and women.

The English longitudinal study on aging looked also at reported sexual difficulties [3]. Striking was that the likelihood of reporting sexual health concerns tended in women to decrease with age and in men to increase with age (Table 29.6). The authors recommended addressing sexual health concerns in the context of the existing sexual relationship, even in advanced age.

The four-country European study looked especially at male sexual disturbances. A total of 75% of the men had at least one sexual dysfunction, and 25% had no sexual dysfunction. The authors state that they found a high prevalence of sexual problems persisting for months or longer but noted that many affected men experienced minimal or no distress related to these problems [17].

This makes clear that we need to reinvent a better language. A man who can no longer reach an erection has a sexual dysfunction, but when he has no distress, there is no sexual problem. That is the reality of many aged men.

Interestingly geographic difference in distress was noted. Aged Southern European men reported significantly more distress than northern European seniors (see Chaps. 10 and 11 for more information on sexual dysfunctions).

29.5 Chronic Illnesses Disturbing Sexuality

In the former paragraph, the sexual consequences of aging itself were shown. A gradual decline of what one could call "sexual potency" takes place. However, desire, erection, lubrication, orgasm, and ejaculation all continue to be possible. That is very different with the appearance of the chronic diseases that can accompany the process of growing older. In the period between still being fully healthy and finally dying, most of us are gradually confronted with various aspects of chronic diseases, increasing frailty, incontinence, and balance disorders. Half of the people in the 55–65 age group in the Western World have at least one chronic disease, and that rises to 75%

above age 75. Many of those chronic diseases and the accompanying medication and other medical interventions can impair sexuality [18].

From the physical perspective, a big part of desire problems are caused by fatigue, disturbed hormonal balance (as in castration, chemotherapy, or radiotherapy), and chronic pain (with sometimes the additional hypogonadal consequences of high-dose opioids).

The majority of diminished erectile and lubricating capacity is caused by disturbed circulation or by disturbance of the responsible genital innervations (as in pelvic surgery or radiotherapy).

The majority of diminished orgasm possibilities are caused by impaired neurophysiological mechanisms. The choreography of orgasm is in some way difficult to influence. Whereas desire and arousal easily can be increased by more foreplay or more stimulation, in orgasm, it depends on "having it" or "not having it." Having lost orgasm can be a serious problem because orgasm is in many relationships seen as a benchmark for a successful sexual encounter.

Here we will address only the more important chronic diseases/disturbances that either are typical for the aged or frequently accompany higher age. Dementia is not included, because it is addressed elsewhere (see Chap. 13 for information on cognitive disorders and sexuality).

29.5.1 Parkinson's Disease

The motor symptoms cause fatigue and impair both the lovemaking activities and communication with the partner. Among the autonomous disturbances are disturbed erectile function and premature ejaculation for men, orgasmic and bowel & bladder problems, and greasy skin (all affecting sexual interplay). Among the neuropsychiatric disturbances are depression, anxiety, dementia, and apathy. Apathy appears to subside with testosterone substitution in the 50% of men with Parkinson's disease who have low testosterone levels [19].

Whereas sexual desire will disappear when the dopamine level decreases, it can return when the levels are increased by dopamine replacement. This can cause premature ejaculation and in a small percentage serious sexual hyperactivity. In dopamine dysregulation syndrome (DDS), the patient craves dopaminergic stimulation, with gambling, compulsive shopping (especially in women), and compulsive sexuality (especially in men) [19]. Since "sexual misbehavior" is rather shameful to bring up, in patients on dopamine treatment, one should at every consultation ask (the partner) about sexual behavior (see Chap. 30 for more information on out-of-control sexual behavior related to disease and medication).

29.5.2 Stroke

The motoric problems can cause spasticity with pain, paresis, fatigue, and loss of sexual positioning capacity (especially in men). The sensibility problems can cause

loss of erogenous zones. Communication may be disturbed (for female partners far more disturbing than for male partners). A subset of men may develop premature ejaculation, and both in men and women, there can be diminished control over sexual impulses. Some patients may experience changes in behavior with less flexibility (for instance, in looking for new sexual positions). Whereas stroke in women causes more troubles with disfigurement, men experience more troubles with loss of autonomy.

29.5.3 Rheumatic Diseases

Rheumatic musculoskeletal problems are a major cause of morbidity in the elderly population. They are responsible for symptoms like fatigue, pain, and stiffness of joints and muscles. Even without causing direct sexual dysfunctions, these symptoms significantly disturb "relaxed sexuality", especially with pain in the pelvic area [20]. Finding sexual positions without pain can become a burden for the patient and couple. When higher doses of opioids or corticosteroids are taken over extended periods of time, the T levels can go down and reduce sexual desire [21]. Reduced muscle capacity (that impairs the development of sexual stimulation) can be replaced by artificial vibration.

29.5.4 Diabetes

Sexual problems are rather common in diabetic patients. The disease slowly destroys the vessels that supply the genital organs and the endothelial cells in the erectile tissue itself, causing erectile and lubrication difficulties. In addition, the nerves supplying the genitals can be damaged, causing decreased sensation, and more problems reaching orgasm and autonomous nerve damage can cause retrograde ejaculation. Especially in males, those sexual function disturbances tend to keep pace with other diabetic complications (of the kidneys, eyes, and extremities) [18]. Some male patients develop metabolic syndrome with visceral adiposis, insulin resistance, low testosterone levels, and diminished sexual desire. Diabetic women have in general more desire problems and men more satisfaction problems.

29.5.5 Cardiovascular Diseases

Most cardiovascular diseases are the result of atheromatous degeneration and narrowing of the arteries and raised blood pressure. It has gradually become clear that erectile failure can be an early manifestation of arterial disease. The narrower the lumen of an end artery, the earlier atherosclerosis will manifest. So atherosclerosis may be expected to first cause erectile dysfunction, because the diameter of the penile artery lumen is only 1–2 mm; then cardiovascular disease, because of the

Table 29.7 Different types of "pelvic incontinence" in aged people [23]

"Pelvic incontinence" in 75+ seniors	Female (%)	Male (%)
Urinary stress incontinence	40	8
Urinary urge incontinence	34	17
Fecal incontinence	8	6
Flatulence incontinence	19	12

coronary artery lumen is 3–4 mm; and then cerebrovascular disease, because of the 5–7 mm diameter lumen of the internal carotid artery [22].

Next to more erectile dysfunction, coronary artery disease is also accompanied by depression and anxiety. After coronary artery disease, many female partners are scared that renewed sexual contact will increase the risk for a repeated event.

29.5.6 Incontinence

Well-known in women are incontinence problems after obstetrical damage. In men, radical prostatectomy may cause incontinence problems and climacturia (urinary incontinence during orgasm). In the process of aging, the pelvic floor muscles of both men and women tend to deteriorate, causing various forms of incontinence [23]. The more relevant ones (shown in Table 29.7) all can have sexual consequences. In women with urinary incontinence, 40–60% have experienced incontinence during sexual activity, notably during orgasm. Incontinence for urine or stool especially impact during receptive forms of oral sex.

Comparable fears can happen when there is incontinence for flatulence. All those forms of incontinence appear to influence sexual activity in those elderly couples who prefer oral sex because of vaginal soreness or erectile dysfunction.

29.6 Maintaining Sexual Functioning

In the process of aging, one can deal with the abovementioned changing sexual physiology in various ways. For some people, that is a grim scenario for the future, causing fear and sadness. However, many people adapt to sexual changes, just as they do with other physical changes, and they continue using remaining sexual capacities as much as possible.

Continued healthy body function depends on use. The principle "Use it or lose it!" goes as well for sexuality. Vaginal health, vaginal length, lubrication capacity, penile length, and erectile capacity all seem to be better maintained by regular sexual stimulation and arousal and by the corresponding blood circulation and tissue oxygenation (see also Chap. 6).

The abovementioned study on aging and sexuality in four countries looked at the relationship between successful aging and sexuality. Higher successful aging scores were consistently related to lower reduction in sexual interest and enjoyment among men and women across the four countries [24].

Regarding the prevention of diseases, Western society has become aware of the importance of paying attention to various "lifestyle factors." Food, exercise, weight, cholesterol, blood pressure, alcohol, and smoking influence cardiovascular health (and in its wake erectile capacity) and metabolic health (and in its wake lowered male testosterone levels and decreased sexual desire). One way to enhance health for the aged goes via long-term investment in lifestyle factors. The continuation of sexual expression and sexual contact can for many be the most pleasurable element towards healthy aging.

A rather recent development is the "antiaging medicine" that focuses on healthy aging and long life ("longevity"). Good elements seem, for instance, the healthy aspects of the Okinawan or Mediterranean diet and lifestyle [25]. Many other elements seem controversial, for instance, the supplements promising longevity with claims that contain far more quackery than evidence (and the consumers' belief "When it doesn't work, it doesn't harm!").

29.7 Changes in Relationships That Influence Sexuality and Intimacy

When searching for sexual pleasure and release, masturbation is a way of sexual expression without a partner. However, for intimacy and connection, the majority of sexuality will have to be experienced in a dyadic context. Looking with that perspective to the aged, two relevant aspects need attention.

One is the male to female difference in the approach to sexual expression. Far more men than women are found to continue masturbation when there is no partner, whereas women's sexuality seems to be far more dependent on the presence of a partner. That was recently confirmed in a UK population survey as shown in Fig. 29.2 [3].

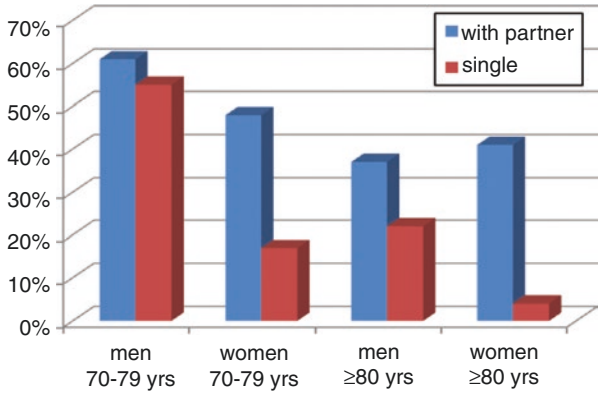

Fig. 29.2 Sexual activity in UK seniors [3]

The other aspect is the life course in average heterosexual couples. In several ways, old relationships change, for example, by caring for an ill partner, by widowhood, by "virtual widowhood", and by dysfunctional handling of sexual changes, each of these presenting with different consequences for sexuality and intimacy.

29.7.1 Caring for an Ill Partner

Whereas dependency will intensify intimacy in few relationships, it will damage sexuality in the majority of couples. Changing from "the caring role" to "the lovers' role" turns out to be rather difficult for most partners. When, on the other hand, the "caring role" is handed over to professionals, privacy tends to disappear. Especially in residential care facilities, little room is left for undisturbed intimacy.

Serious disease can also mean the end of a relationship. No data are known for the 70+ age group, but in American couples, aged ≥50 years, divorce was found to happen especially in cardiac diseases and in stroke and especially when the woman is the patient [26]. This gender difference could be attributed to the poorer caring skills of men. We also believe that part of the men lacks the adaptation skills to deal with the sudden loss of their familiar intercourse pattern.

29.7.2 Widowhood

Women grow older with (at age 60) a life expectancy of 2.8 years longer than men (in Europe even 4.0 years longer). In addition to this, there is an age disparity in sexual relationships with women tending to marry a male partner of 2–3 years older. Those two factors combined cause at higher ages a skewed age distribution with ±5–7 cohorts of aged women without a partner. Especially above age 80, the male-to-female ratio is really out of balance, with in Europe only 51 men per 100 women. Whereas for some women becoming single finally will mean peace of mind and the chance to shape their own life, others will suffer from sexual loneliness. Asking aged widows about sexual bereavement is nearly never done by the social environment, nor by their HCPs, and can add to the suffering [27].

29.7.3 Virtual Widowhood

When one partner in a couple develops dementia, the other partner can suffer seriously. Especially in the beginning of the process, friendship, love, intimacy, and sexuality can stay embedded in the couples' marital life, although with changing roles and a shift in purpose of the relationship [28]. Gradually some residential care facilities are learning how to deal with privacy for such couples.

In the more advanced stages, especially when the partner is no longer recognized, the relationship can take another course. The partners can experience a kind

of virtual widowhood with sexual loneliness. Then some partners can get stuck between the once made promise of "faithfulness to death", feelings of guilt, new sexual opportunities, and disapproval by the children.

29.7.4 Dysfunctional Handling of Sexual Changes

Another reason to stop partner sexuality is when the partner (or the couple) is not able to adapt to the consequences of disease or sexual aging. For some couples, the challenge of erectile difficulties or dyspareunia is an introduction to a process of renegotiating intimacy. Other couples cannot cope with that. Their traditional concept of sexuality and its nearly inevitable script of vaginal intercourse can preclude new developments and lead to complete loss of intimacy [29].

When again single, many seniors will miss their familiar amount of intimacy or sexuality. Especially after many decades of monogamy, it can be rather confusing and challenging to restart a relationship (frequently also evoking resistance by the children). In spite of the physical needs, it can be also very daring to reenter the sexual arena with wrinkles, less firm breasts, some urinary incontinence, easy flatulence, and/or a less firm erection.

29.8 Mental Health Issues That Affect Sexual Activity in the Elderly

Relatively little is known on the interrelation between psychiatry, aging, and sexuality. Here we'll address some of the topics, relevant for psychiatry.

29.8.1 Depression

On the one hand, depression can be expected to be more common in aged people with dementia, stroke, and Parkinson's disease [19]. It may be expected as well as a common side effect of loneliness in those old who lost their partner. A third common reason is the mood-lowering effect of low androgen levels (in men, for instance, after androgen deprivation treatment in prostate cancer but also in metabolic syndrome), which can be reinforced by lowered sexual function and lowered sexual identity.

Diagnosing depression can be somewhat different, because aged people tend to highlight various physical complaints, with more agitation, hypochondriasis, and general somatic and gastrointestinal symptoms. But they show less guilt and less loss of sexual interest [30].

Depression is a well-known risk factor for sexual problems in both men and women (see Chap. 16 for details). There are no data at all on the sexual side effects of antidepressants in old people (see Chap. 24 for information on sexual side effects of psychotropic medications).

29.8.2 Partnership Dependency

After living together for many decades, partnership can have different consequences for mental health. In aged couples with a strong mutual dependency, the remaining partner can get not only seriously confused after partner's death or dementia but also after hospital admission. Some situations require that the patient and partner are admitted together in the hospital, a strategy used in some affluent societies.

When one person in a very aged couple needs psychiatric care, the other partner becomes for several reasons very relevant, not only for proper history taking and for treatment aspects but also for behavior adaptations. This is an area where it could be very valuable to address the area of sexuality and intimacy.

29.8.3 Sexual Abuse

More social isolation, more assistance needed in daily living, and decreased cognitive capacities are associated with higher risk for sexual abuse. Although happening everywhere, the majority takes place in nursing homes with other nursing home residents as the main perpetrators. One guesses that three-quarters of the victims are female (i.e., one-quarter is male!) and three-quarters of the perpetrators are male (i.e., one quarter is female!). Especially in psychogeriatric and dementia care, it can be difficult to differentiate between desired and unwanted sexual approaches, partly because of the complexities of informed consent in those situations [1] (see Chaps. 25 and 26 for more information on sexual abuse).

29.9 Key Messages

- This chapter has offered the reader a rather positive perspective on sexuality of the aged. Elderly people also have sexual desires and sexual dreams, and many have an active sexual life. On the other hand, elderly people too can have sexual problems, for which they should like to have attention, but they may not raise that topic.
- For the mental health-care professional, asking elderly people about their sexual life could be a challenge. Addressing the topic will do no harm when there is no more sexuality and when there is no problem. When, on the other hand, there are sexual disturbances, bringing up the topic can enhance the contact between HCP and patient or couple [31]. One expected extra benefit could be that there will be better compliance with treatment recommendations.
- Most young HCPs tend to underestimate the importance of sexuality in the aged. However, when addressing this area, the young HCP's frame of reference tends to overestimate the importance of erection, penetration, orgasm, and ejaculation. Inquire also about distress, since especially at higher ages a sexual dysfunction in itself doesn't mean a sexual problem.
- Prevention is one of the aspects of good care. When again single (and lonely) after several decades of marriage, seniors run the risk of contracting HIV or other

STD. The combination of no more risk for pregnancy, no sexuality education (as received by the younger generations), a lowered immunity, the absence of condom skills, and a more vulnerable vaginal wall is a fertile ground for transmission. In the aged, the rates of HIV infection increase faster than in the young [32]. The accompanying shame to address sexuality in a new relationship seems for us professionals a strong argument to proactively talk about this.

- Thanks to good medical care, people nowadays live much longer in spite of chronic diseases and the accompanying polypharmacy. So they have to deal with the sexual side effects of those chronic diseases and medication. It is curious that for many of the modern seniors, sexual disturbances ("dysfunctions") are no reason to stop intimate contact. Many seniors tend to be far less bothered by appearance imperfection and sexual imperfection.
- Some again-single seniors cannot deal with being alone and try desperately to fill up that void. Because of various risks for abuse, some attention and maybe adjustment also belongs to good care.
- Gradually the attention of medicine is changing from only treating symptoms to including promotion of well-being. One aspect of geriatric psychiatry could be addressing this area of "successful aging." That is not a matter of staying young with proper physical functioning and then death. It is more a matter of positively dealing with one's chronic conditions and physical impairments and to continue enjoying life. For an increasing number of seniors that will also mean enjoying a sexual life. With integration of renegotiating intimacy; accepting the absence of erection; dealing with urinary incontinence, sagging breasts, and wrinkles of oneself (and maybe of a new partner); focusing on the pleasures of what still is sexually possible; dealing with the loss of a partner; and maybe daring to look for a new soulmate or bedmate.
- Assuming that even at high age an active sexual and intimate sexual life has health benefits, it seems reasonable to include that area in the promotion of healthy aging.

Not addressing the topic of sexuality and intimacy in our patients is bad care.
Doing so, but not in the aged, is age discrimination.

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Compulsive- and Other Out-of-Control Sexual Behaviors

30

Michal Lew-Starowicz and Mateusz Gola

30.1 Introduction

Loss of control over sexual thoughts or phantasies, urges, or behavior may cause a variety of negative consequences to a person or his/her environment, becoming a common reason for referring for help to mental or sexual health professionals. For several decades there has been an ongoing debate on different conceptualizations and etiological mechanisms of this condition that is now also likely to be recognized as a distinct disorder. It has been previously described in the literature under many different terms such as sex addiction; compulsive, impulsive, or compulsive-impulsive sexual behavior; nonparaphilic hypersexuality; erotomania; and historical names like satyriasis, don juanism, and nymphomania. More recently, the diagnostic criteria of hypersexual disorder (HD) proposed by Kafka [1] have been submitted to the DSM-5 (Diagnostic and Statistical Manual of Mental Disorders, fifth edition), yet rejected. Later on, the concept of compulsive sexual behavior disorder (CSBD) was enclosed in the new ICD-11 (International Classification of Diseases, 11th Revision) classification under the category of impulse control disorders [2, 3]. The diagnostic criteria of HD and CSBD have been summarized in

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Table 30.1 The diagnostic criteria for hypersexual disorder by Kafka [1] and compulsive sexual behavior disorder in ICD-11 [2, 3]

Hypersexual disorder	Compulsive sexual behavior disorder
A. Over a period of at least 6 months, recurrent and intense sexual fantasies, sexual urges, or sexual behaviors in association with three or more of the following five criteria: A1. Time consumed by sexual fantasies, urges or behaviors repetitively interferes with other important (non-sexual) goals, activities and obligations A2. Repetitively engaging in sexual fantasies, urges, or behaviors in response to dysphoric mood states (e.g., anxiety, depression, boredom, irritability) A3. Repetitively engaging in sexual fantasies, urges, or behaviors in response to stressful life events A4. Repetitive but unsuccessful efforts to control or significantly reduce these sexual fantasies, urges, or behaviors A5. Repetitively engaging in sexual behaviors while disregarding the risk for physical or emotional harm to self or others	A persistent pattern of failure to control intense, repetitive sexual impulses or urges resulting in repetitive sexual behavior. Symptoms may include: • Repetitive sexual activities becoming a central focus of the person's life to the point of neglecting health and personal care or other interests, activities, and responsibilities • Numerous unsuccessful efforts to significantly reduce repetitive sexual behavior • Continued repetitive sexual behavior despite adverse consequences or deriving little or no satisfaction from it
B. There is clinically significant personal distress or impairment in social, occupational, or other important areas of functioning associated with the frequency and intensity of these sexual fantasies, urges, or behaviors	The pattern of failure to control intense, sexual impulses or urges and resulting repetitive sexual behavior is manifested over an extended period of time (e.g., 6 months or more) and causes marked distress or significant impairment in personal, family, social, educational, occupational, or other important areas of functioning
C. These sexual fantasies, urges, or behaviors are not due to the direct physiological effect of an exogenous substance (e.g., a drug of abuse or a medication)	Distress that is entirely related to moral judgments and disapproval about sexual impulses, urges, or behaviors is not sufficient to meet this requirement
Specify if: Masturbation, pornography, sexual behavior with consenting adults, cybersex, telephone sex, strip clubs; other	

Table 30.1. In this chapter we use the term out-of-control sexual behaviors (OoCSB) as a general description for all forms of problematic sexual behaviors and treat the CSBD as a group of these behaviors meeting criteria proposed in ICD-11.

The prevalence of compulsive sexual behavior is estimated at 3–6% in the general population, with an approximate 4:1 male to female ratio [4]. It is worth noting that compulsive sexual behavior even more common in particular groups including sexual offenders and people infected with HIV [5–7]. For clinicians, it is important to understand OoCSB within this wide range of clinical manifestations and mechanisms, representing a distinct syndrome like CSBD or resulting from other

conditions (e.g., related to a mental disorder, as a result of substance abuse, medication side effects, etc.). Making these distinctions and recognizing mechanisms underlying OoCSB is a key to a proper "patient-oriented" not "disease-oriented" clinical intervention.

30.2 Clinical Manifestations of Out-of-Control Sexual Behaviors and Their Consequences

Problematic pornography use (PPU), usually accompanied by compulsive masturbation, is the most common clinical presentation and reason for treatment seeking due to OoCSB, mainly in men [8–10]. The use of Internet pornography has grown tremendously especially since the introduction and accessibility of streaming technology and smartphones. As the 2018 annual report provided by one of the largest pornsites indicates, the total transfer of data from this site reached 4403 PB and all the visits totaled 33.5 billion, which equates to a daily average of 92 million visitors with a total proportion of 71% males and 29% females [11].

When does pornography use become problematic? In a recent study in a representative USA sample of 2075 Internet users it was found that approximately half of them reported past year use of pornography with 11% of men and 3% of women reporting "feeling addicted to pornography" [12]. Subjects who show up with problematic traits of pornography use, usually report "craving," diminished self-control, impairment in functioning, and using pornography in order to cope with negative feelings such as anxiety or dysphoric mood and overall higher rates of psychiatric concerns including depression, anxiety, and substance use [13–15]. It must be underlined, however, that only the minority of pornography users will experience the "loss of control" and negative consequences of pornography use. The psychological and neurobiological mechanisms being involved in PPU are extensively investigated and will be elaborated within the next section of this chapter.

Other than PPU and compulsive masturbation, forms of OoCSB include various sexual interactions with third parties—direct or implementing different communication devices. The first include behaviors such as compulsive cruising, impulsive sexual contacts with casual partners, use of paid sexual services, or attending strip clubs. The latter are sex phone calls and different forms of the so-called cybersex: attending erotic chatrooms, webcams, or any other use of computer/Internet in order to communicate sexually or share erotic content ("sexting"). Reliable statistics of problematic and non-problematic use of these technologies are yet unknown.

30.3 Etiologies of Out-of-Control Sexual Behaviors

30.3.1 Compulsive Sexual Behavior Disorder

The growing research evidence on psychological and neurobiological mechanisms underlying compulsive sexual behavior (CSB) resulted in the introduction of the CSBD into the ICD-11. In the definition it has been emphasized that the individual

becomes highly preoccupied with sexual activities, leading one to neglect other important areas of life and losing the ability to control (restrain) sexual behavior even when facing negative consequences or having a reduced satisfaction from it. In order to avoid the overpathologization of high-frequency sexual behavior, individual distress cannot be directly related to moral judgment or social disapproval [2, 3]. In fact, CSBD individuals exhibit higher rates of sexual anxiety, sexual depression, external sexual control, and fear of relationships as compared with the general population. The more severe the CSB, the less sexual esteem, internal sexual control, sexual consciousness, assertiveness, and satisfaction they reveal [16]. Dysregulation of emotion is commonly seen in people with CSBD and may contribute to its occurrence. CSBD is often comorbid with depression, substance use disorders, and ADHD. Sexual behavior, due to its rewarding and relaxing nature, may be used as a learned mechanism of coping with negative mood states. This becomes a delusive form of self-regulation leading to the loss of control over sexual behavior (for more see a review by Lew-Starowicz et al.) [17]. An altered sensitivity to sexual rewards and deficient behavioral control is supported by the functional neuroimaging studies which have shown an increased striatal reactivity for sexually explicit videos [18] and for erotic cues followed by a higher motivation to obtain this kind of a reward [19], as well as decreased functional connectivity between the ventral striatum and prefrontal cortex [20]. This, in fact, resembles the common pathway seen in substance use disorders and behavioral addictions such as gambling [21].

Experience of childhood trauma (including sexual) and insecure attachment patterns are more common in CSB individuals than in the general population [22, 23]. Early exposure to abuse, including sexual trauma, is recognized as one of the potential factors contributing to the development of insecure attachment styles in later life [24]. Weinstein and colleagues found in a study of 104 individuals that attachment anxiety and attachment avoidance were positively associated with sexual compulsivity [23]. However, the data linking childhood and sexual abuse and insecure attachment styles as determinants of CSBD formation is still very limited and needs further exploration.

The release of tension by an unaccepted sexual outlet is often followed by feelings of guilt and shame. Other negative consequences include increased risk of a sexually transmitted disease, financial losses, worse overall functioning, and relationship problems, sometimes also legal problems. The loss of control over one's behavior or acquiring sexual behavior outside a committed relationship by a partner are common reasons for help-seeking behavior. Sexual dysfunction during intercourse may appear as a result of habituation to the intensive stimulation provided by the regular use of pornography. Craving for more and more differentiated excitement may also lead to searching some deviant, even preference-dystonic (e.g., sadomasochistic, pedophilic, zoophilic) content and related distress or even breaking the law and related punishment.

Interestingly for mental health professionals, as of research summarized by Bancroft, the majority of both hetero- and homosexual men and heterosexual women reported decreased sexual interests when depressed, anxious, or stressed, whereas a minority (10–20%) reported an increase sexual interest [25]. This was

explained by several possible mechanisms: (1) increased sexual interest satisfying depression-related need for personal contact or validation by another person or improving one's self esteem; (2) sexual stimulation as distracting one's attention from the core emotional or situational issues that induce negative mood; and (3) increased sexual interest and arousability in negative mood states that are characterized by increased arousal (e.g., anxiety or stress) representing a specific "excitation transfer" with a possible release after orgasm. In contrast to men, women are more likely to engage in sexual phantasies, seductive behavior leading to multiple affairs, sadomasochistic behavior, and sex-business and also more commonly describe themselves as "love-addicted" [26–28]. However, the evidence-based data on CSBD in women as well as in sexual minorities is currently very restricted.

Case Report 1

Jacob is a 36-year-old manager working for a private company, married, and has two young daughters. He is the only son of his parents who had many marital conflicts since Jacob can remember, with his father occasionally being physically aggressive to the mother. As a kid, Jacob witnessed several instances of his parents having rough sexual intercourse, and pornography was always easily accessible at home. Jacob is physically fit; formerly he was very active in sports but now is more absorbed by his well-paid, yet very stressful job. He is also distressed by the economic problems of his parents that are relying largely on his financial support. In his twenties, he consulted a psychologist due to some adjustment difficulties after his girlfriend left him for another man. Despite experiencing depression, he left therapy after 2 or 3 months.

He came for a consultation after his wife realized that he made a debit on their bank account and found multiple pornsite payments and conversations at the erotic dating application on his computer. He admitted having at least 15 casual sexual female partners during last 7 years and using escorts especially during his business trips. He also masturbates regularly using porn since he was 10 years old, and recently he reports having regular 2–3 h "porn sessions" at least two times weekly at night when everybody is sleeping. Because of that he felt tired the next day and had problems concentrating on his tasks at work and also often refused having sex with his wife which increased the tension in their relationship. Occasionally, when feeling angry or frustrated, he used to masturbate at work or call an escort during a lunch time.

During a consultation he was ashamed and additionally distressed by the fact that his wife was recently diagnosed with an HPV infection that he felt responsible for. He disclosed all his sexual activities to her and came motivated to start a therapy which was also a condition his wife imposed for staying together as a couple. An individual therapy included analyzing patterns and origins of Jacob's sexual behaviors, their emotional context, and early recognition of precipitating circumstances (early enough to influence the

behavioral consequences), learning how to cope with stress, inner tension or frustration, as well as defining values the patient would focus on. Jacob actively participated in regular meetings once a week for 5 months and then once a month for a next half a year and one more follow-up visit 3 months after finishing the therapy. In the third month of therapy, he had one impulsive sexual intercourse with a casual partner. Due to depressive symptoms he was receiving an SSRI for 6 months. Jacob largely changed his sexual functioning completely, discontinuing pornography use, sex dating apps, or using other sexual services. Both he and his wife attended five sessions with a couple therapist. They started having regular and satisfactory sexual intercourse and Jacob rarely masturbated, just to relieve sexual tension while being on a business trip, without pornography use. He found he is much more engaged being with his wife and daughters and also coping better with his stressful job.

30.3.2 Out-of-Control Sexual Behavior Due to Other Medical Condition

Clinical practitioners should be aware that OoCSB may belong to a clinical picture of other mental or neurological disorders. Hypersexual behavior is especially common in bipolar disorder during manic episodes. Individuals in mania exhibit the tendency to seek reward that includes sexual cues, which, together with poor impulse control and underestimation of the negative consequences, make them especially prone to engage in risky sexual behaviors and exposure to STDs [29–31]. OoCSB may be also related to lesions within brain regions responsible for the inhibition of sexual behavior (frontal lobes) and sexual arousal (temporolimbic areas). Hypersexual behavior was demonstrated in patients with frontotemporal dementia, Klüver-Bucy syndrome, unilateral temporal lobectomy, and Tourette's syndrome (especially when accompanied by ADHD) [32–34]. These often include increased sexual drive, problematic sexual behaviors like exposing genitals, openly and/or compulsively masturbating, inappropriate sexual advances, comments or touching third parties sexually. Patients with borderline personality disorder typically show high levels of impulsivity, high-risk sexual behavior and promiscuity, as well as sexual preoccupation are commonly seen. Many of these patients have also history of sexual abuse and maltreatment [35, 36] (see Chaps. 13, 17, 21 and 26 for more information on sexuality in people with cognitive, bipolar and personality disorders, and victims of sexual abuse).

Case Report 2

Monica is a 44-year-old journalist, married for 18 years, and has two twin-daughters aged 15. Since age 24 she was treated for recurrent depression with a most severe episode after childbirth, and at the age of 32 she was diagnosed with bipolar disorder. She does not accept the diagnosis and is not compliant

with the treatment, usually stopping the mood stabilizers and continuing with antidepressants as she is afraid about the relapse of depression and feels very good when hypomanic. During remission she used to have very good relationship with her family. While being hypomanic, she becomes often irritated, absorbed with new ideas at work, demanding sexual intercourse from her husband at least twice a day. This provoked conflicts in the relationship, but Monica never agreed for a marital nor an individual therapy. Recently she developed a full manic episode after stopping her medication for 2 months. She became overactive, sleeping 2–3 h a night, aggressive to his husband, started a "new business trip" around the country with a man she met in the bar who apparently became her lover. During 1 month she spent about 17,000 euros on hotels, alcohol, and shopping including expensive gifts for her lover and random people she met on her way. She also texted her husband that she wants to divorce him and then stopped responding to his calls. After finally being arrested by police after driving recklessly fast on the highway and being aggressive toward the policeman, she was admitted involuntary to the hospital. Within the psychiatric unit, she was several times immobilized due to her violent behavior, and she seduced many other male inpatients having sexual intercourse with some of them and even causing fights between these who were jealous of her. Twice she even was stopped while harassing younger women on the ward sexually.

After being successfully treated with antipsychotics and two mood stabilizers, while in remission, she started regretting her behavior and decided for an individual therapy after leaving the hospital. However, she was still ambivalent about being with her husband who now demanded that they should live apart for some time and start with the couples therapy. The daughters didn't want to be in contact with their mother at that time.

30.3.3 Out-of-Control Sexual Behavior Due to Medication or Substance Abuse

There is a relationship between the type of drug and the likelihood of an OoCSB. Sexual preoccupation, a large increase in sexual drive, and having sex outside a committed relationship was commonly reported under the influence of psychostimulants such as cocaine or methamphetamine [37]. Alcohol decreases the top-down control of brain reward system by the prefrontal cortex (PFC) control regions. Therefore, alcohol intake may cause deficits in executive activities leading to, among others, sexual disinhibition [38, 39]. So, alcohol does not lead directly to OoCSB but decreases the control over sexual behavior in susceptible individuals. Taken together with other drugs that may stimulate sexual arousal, it can add to a more severe OoCSB including casual and unprotected sexual contacts, sexual practices that otherwise would be uncommon for an individual (like group sex, deviant behavior) and sexual regret (see Chap. 14 for more information on substance-related disorders).

Hypersexuality is also described as one of the symptoms of the dopamine dysregulation syndrome, a relatively rare (3–4%) iatrogenic condition in patients with Parkinson's disease developed during the treatment with dopaminergic medications (most likely with levodopa, pramipexole, ropinirole), usually when dose of the drug is being significantly increased. Other symptoms include dyskinesia, psychomotor activation, restlessness, stereotyped behavior (punding), as well as other impulse control disorders such as pathological gambling, compulsive shopping, or eating [40–42]. Few cases of compulsive sexual behavior and other impulse-control behaviors like gambling induced by aripiprazole (antipsychotic drug with D_2 and D_3 dopamine receptor agonistic properties) were also reported [43, 44] (see Chap. 24 for more information on impact of psychopharmacology on sexual functioning).

Case Report 3

Jack is a 26-year-old physical worker who lives with his male partner in a rented flat since 4 years. Since being 16 years old, he smokes marijuana occasionally and used to drink alcohol mainly on weekends, since 5–6 years often becoming drunk during parties. Initially he had a satisfactory sexual life with his partner but now he experiences difficulties becoming aroused since couple of months. Two years ago he started using methamphetamine and mephedrone during parties, which was not accepted by his partner. Now he takes the drugs secretly at home and goes out telling his partner he has an extra job at night as a security guard. During his night trips he is cruising with other men using mobile sex-dating applications or just meeting them in clubs or parks. He had sexual contacts with many casual partners that way, including group sex and also taking drugs together (stimulants and "poppers"). Once or twice monthly, he waits until his partner goes to work and then starts taking drugs and masturbates 10–20 times with porn for a whole day. The usual pattern is as follows: He feels tension, wants to drink alcohol, then being more likely to take stimulants, and after that he feels sexual urge with a high need of sexual sensation seeking. After "the high" ends he regrets, tries to reward his partner with common activities and gifts, but keeps the secret about his sexual practices. Once his partner came home early and saw Jack masturbating and being on drugs, he asked him to leave the apartment or start the addiction therapy. Jack came for a consultation to find out if he is addicted to drugs or sex and how to solve problems in his relationship. Starting with motivational interviewing, analyzing consequences of substance abuse, impulsive, and compulsive sexual behaviors, the patient was next referred to addiction therapy. During subsequent consultations, it became clear that keeping the drug abstinence eliminated all the high-risk sexual behaviors and minimized the use of pornography. Satisfaction from sexual activity with his partner has improved; however, Jack often complained that it is not that rewarding as when he was on drugs. He broke the abstinence several times and his partner broke up with him. At that time Jack continued addiction therapy in an inpatient setting. After 1 year of being sober, he is also free of CSB and happily starting a new relationship.

30.4 Clinical Management

First, it should be acknowledged that the feeling of loss of control over sexual behavior is a subjective experience which largely refers to individual's beliefs, to perceived consequences, and also commonly to cultural norms and environmental expectations. It is of note that, according to the ICD-11 criteria, CSBD should not be diagnosed based just on psychological distress related to moral judgments or disapproval about sexual impulses, urges, or behaviors [2, 3]. However, even for cases where OoCSB is not caused or diagnosed as a mental disorder, appropriate explanations, psychoeducation, and coping strategies should be delivered.

A referral to a mental or sexual health practitioner with complaints of OoCSB often happens in circumstances when unaccepted sexual behavior was disclosed by a partner and causes a severe relationship distress. Subjects may also seek help when faced with other negative consequences such as problems in work, STD, mood instability, regret, or even some legal problems (e.g., being accused of harassment or storing illegal pornographic content).

Several important issues have to be initially considered by HPs when consulting cases of OoCSB:

- Is sexual behavior a form of self-regulation or consequence of other mental health problems/medical conditions/iatrogenic factors?
- What is the risk of sexual behaviors that would be harmful to an individual or a third person? (risk management)
- Is it an OoCSB or high sexual drive that is being reported or the discrepancy of sexual needs between the partners? (when consulting a couple)
- What is the real motivation of a patient to visit a HP or start with therapy? (internal, external, situational, etc.)

The most important indicators of OoCSB as a condition that needs therapeutic intervention are preoccupation with sexual thoughts or activities that interfere with everyday functioning, failure to control sexual urges or behavior, and repetitive sexual activities leading to negative consequences as well as individual suffering.

For a mental or sexual health professional, it is important to see sexual behavior as one of the ways of coping with negative mood, anxiety, or stress, which in the case of CSB, becomes uncontrolled and leads to various negative consequences. The history of childhood trauma and attachment difficulties should also be explored and, if present, properly addressed in counseling or therapy.

Clinicians consulting subjects with CSB should also take into account a high comorbidity with anxiety disorders (46–96%), mood disorders (39–81%), ADHD (18.7%), as well as substance use disorders (46–71%) [27, 45–47].

The clinical interview should include sexual and medical history, including any mental disorders and their treatments, substance abuse, and relationship status. Special attention should be given to the assessment of sexual behaviors that are

out-of-control and sexual behavior that is related with risk and harm to the patients or other persons. In patients who reveal an ambivalent attitude toward therapy or solely an external motivation, motivational interviewing is highly encouraged and the negative consequences resulting from OoCSB should be elucidated. It is of note that patients interviewed in the presence of their partners may not disclose important information regarding their sexual activities. Patients are often blamed for the relationship crisis and presented as "perpetrators," while the partner is a "victim," or they may present with disgusting behaviors but the interviewer/therapist should remain neutral and restraint from any moral judgment. This would be important for building a proper therapeutic alliance with the patient or the couple (see Chap. 9 for more information about clinical interview and sexual history taking).

Different scales and questionnaires might be used to support the diagnostic process and evaluate the severity of symptoms, e.g., The Sexual Addiction Screening Test (SAST) [48], Sexual Compulsivity Scale (SCS) [6], Hypersexual Behavior Inventory (HBI) [49], Hypersexual Disorder Screening Inventory (HDSI) [8], and Brief Pornography Screener (BPS) [50].

Treatment of OoCSB

The most important points summarizing the treatment of OoCSB are as follows:

- There are no officially accepted guidelines for the treatment of CSBD as it has been just very recently introduced to the classification of mental disorders. An ongoing debate between clinicians as to whether it should be treated as an addictive, obsessive-compulsive, impulse-control disorder, or high sexual drive has not been resolved yet. Generally, psychotherapy is commonly proposed as a first-line therapy in CSBD and various modalities like 12-step programs, cognitive-behavioral therapy, cognitive-analytical therapy, or mindfulness-based approaches are being implemented [51] (see Chap. 12 for more information on sexual counseling and therapy).
- Therapeutic efforts focused on emotional and behavioral self-regulation skills may be particularly useful in individuals with a tendency toward impulsive decision-making, in order to decrease the likelihood and frequency of risky sexual behaviors.
- For more conservative therapists, sexual abstinence of all sexual activities except marital intercourse is perceived as the major therapeutic goal, more liberal approaches are focused on regaining control over sexual behavior including sexual relationships, masturbation, or the use of erotica. The full-sexual abstinence is often requested at the first stage of therapy followed by a gradual inclusion of sexual encounters in order to recover the sense of internal control and reconnect sexual behavior with emotional engagement and acceptance according to one's personal values, as well as to achieve pleasure which is not related to feelings of guilt or shame.

- There are no pharmacological medications officially indicated for the treatment of CSBD. All pharmacotherapies are used empirically and "off-label," usually as an adjunct to psychotherapy. The use of anti-androgens (aimed at reducing sexual desire) is limited to sexual offenders and the most severe cases of CSB. Most studies and case reports show a potential role of drugs enhancing serotonergic transmission (as improving both CSB symptoms and mood regulation) and opioid receptor agonists. However, existing evidence-based data is scarce, and these medications should be used with caution [17].
- OoCSB other than CSB may require another treatment strategy according to its etiopathogenesis, e.g., cessation of substance use that decreases the control over sexual behavior, proper mood stabilization in mania using antipsychotics or mood stabilizers, and appropriately focused psychotherapy. In patients with dopamine-dysregulation syndrome, hypersexuality as well as other symptoms are usually managed by levodopa dose adjustment and avoiding it's rapid-acting formulations [40].
- Risk- and harm-reduction also play an important role in the clinical management of OoCSB, so preventive strategies in order to avoid sexual abuse and STD should be implemented.
- Counseling or couples therapy should be offered if OoCSB causes problems in the relationship. Some patients may experience sexual dysfunction limited to contacts with his/her regular partner. For those cases an additional sexual (individual or couple) therapy may be offered.

30.5 Key Messages

- Compulsive sexual behavior and other out-of-control sexual behaviors represent a variety of clinical presentations that commonly lead to negative sexual and non-sexual consequences affecting an individual and his/her environment.
- Problematic pornography use and compulsive masturbation are the most common forms of CSB.
- OoCSB are highly comorbid with other psychiatric disorders and substance abuse so all these conditions should be screened during clinical examination.
- When consulting individuals who seek help or are being referred due to OoCSB, it is important to investigate different mechanisms (such as poor self-regulation, mental disorder, medical condition, substance abuse, medications) that may underlie problematic sexual behavior.
- Special attention should be given to risky sexual behaviors that may cause harm to patients or their partners and preventive strategies should be implemented.
- While no official guidelines on the treatment of CSBD have been introduced, an integrated and individualized therapeutic approach might be useful including individual or group psychotherapy sometimes supplemented with pharmacotherapy (especially when CSB is accompanied by mood dysregulation) or couples counseling. Other than CSBD etiologies of OoCSB need an appropriate causative treatment.

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Genital Dysmorphophobia

31

Ioana Micluţia

31.1 Introduction

Genital dysmorphophobia (GDP) is a condition less frequently diagnosed, which has evolved partly from the contemporary trends, as a sequential part of body dysmorphic disorder (BDD). It is often under-recognized, under-studied, and quite often untreated. Hence, the greater part of scientific literature has focused on the advances of cosmetic procedures and/or surgical interventions applied to penile augmentation [1, 2] or labiaplasty [3, 4].

Although the sense of masculinity/femininity is given not only by the length/shape of the penis and vulva but also by an inner sense of belonging to the male or female sex and/or gender role, muscularity, breasts, hips, and buttocks, the GDP rather points to the preoccupation and concerns regarding the size, shape, and function of the penis/vulva. The overwhelming amount of cosmetic and surgically corrective procedures are still dedicated to rhinoplasty, skin rejuvenation, and breast augmentation, but genital corrective interventions have begun to gain popularity [5, 6].

Body image, a broader notion, refers to perceptions, thoughts, and feelings about the own body, which are influenced by outlooks, development, and socio-cultural factors. A negative body image might seriously affect the sexuality of the individual [7]. Body image dissatisfaction motivates an individual to employ different masking strategies (weight loss, clothing, cosmetics) or take interest and apply for aesthetic corrections.

The genital image is a subset of the overall body image, with an important role in sexual functioning [7]. It is defined by Winter as the degree of feeling satisfaction/dissatisfaction with various aspects of the genitals [8]. Penis size is regarded in

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many cultures as a sign of masculinity, power, and sexual prowess [9]. Scarce data reflect the importance of female genitalia, and the demand for beautification procedures seem rather new [4].

31.2 Classifications and Nosology

GDP is not yet recognized as an independent diagnosis, being part of BDD. If we look at the definition of BDD as an excessive and persistent preoccupation and worry regarding perceived defects and flaws in one's appearance, we can deduce that GDP complies with the above definition but specifies more clearly the object of misidentification, respectively, the genitals. Even BDD has a short history, as for many years it was called *dysmorphophobia*, and included in 1980 by DSM-III to the atypical somatoform disorders [10]. Later on, BDD, renamed as body dysmorphic disorder, constituted either a separate diagnosis (DSM-III-R) or had been included within the somatoform disorders (DSM-IV) but with explicit specification that it was not encountered by another mental disorder (e.g., anorexia nervosa). A substantial change could be noticed in DSM-5, since BDD has been classified in the chapter on obsessive compulsive-related disorders, along with obsessive compulsive disorder (OCD), hoarding disorder, trichotillomania, and excoriation disorder, based on common neurobiological factors, phenomenology, and comorbidities [11]. Common features of this class are represented by the request for repetitive behaviors (mirror checking, excessive grooming, reassurance seeking) or mental acts (comparison to others), facilitating also the delineation to social phobia and depression [11]. Another important key factor is the insight component, which is good in OCD and might be poor in BDD or absent in the rare cases of delusional dysmorphophobia.

ICD-10 does not assign a distinct diagnosis for BDD nor to GDP, being listed as hypochondriasis disorder [11]. The newly launched ICD-11 (2018) considers BDD, similarly to DSM-5, as a separate diagnosis within the chapter of OCD and related disorders, but provides specifiers close to GDP in the chapters—"Disorders of bodily distress or bodily experience," "Conditions related to sexual health, referring to changes in female/male genital anatomy."

31.3 Prevalence

Even BDD is not very well documented by large epidemiological catchment area surveys, which ignored this diagnosis and those derived from it. The prevalence rates estimated for BDD reach 1.9–3.2% in community populations, higher in inpatients and up to 7.4% in psychiatric patients. The numbers should be regarded as guiding [9, 11]. Although it seems that BDD is quite common, it is still underreported, under-diagnosed, and inappropriately treated [12]. Given the relatively sparse knowledge on BDD, the knowledge on GDP is even sparser, and we can

presume that GDP is still a hidden, scarcely investigated disorder. Causes of this situation might be the shame of the affected persons, the lack of adequate diagnosis criteria, or ignorance of health professionals. Assuming that GDP might have similar distribution patterns as BDD, though more organ centered, the disorder rises in late adolescence, being more prevalent in the adult population, after sexual organs are fully developed and sexual experiences and feedback is present. Cosmetic and surgical remedies do not solve the problems satisfactorily, and the main problem cannot be detected by psychiatrists in a timely manner but rather after long delays or due to comorbidities, complications such as social phobia, obsessive compulsive disorder, depression, substance abuse, and suicidality [9]. Aesthetic specialties report quite high prevalence rates of BDD [13]. A majority of BDD patients seek corrective minimally invasive cosmetic treatment and/or surgical interventions (33–76%) [11]. The data referring to the sex ratio in BDD are inconsistent, assigning 1.27% in favor of adult women in the community [9–11]. This might not apply for GDP where more corrective surgery procedures are described for men [1, 2, 6]. Furthermore, one study revealed 4% prevalence of BDD in women seeking labiaplasty [5]. The more frequent reasons for labiaplasty are low sexual self-esteem, cosmetic concerns, and impaired sexual functioning [3]. The evolution is chronic, with modest improvements after cosmetic or surgical procedures—even with complications [3]. The main reasons for men with BDD to apply for corrective procedures include penis length, a discrepancy between subjective and objective perception of own penis, shame, altered perception of the genitals, dissatisfaction with the aesthetics, and/or functionality of the penis [1, 13].

31.4 Etiology

The most convenient hypothesis is the diathesis stress model, which explains the disorder by the interplay between certain genetic predispositions, neurobiological disturbances, and the occurrence of environmental stressors (early childhood experiences), along with psychological vulnerabilities (guilt, inferiority, shame), cultural factors (media, social pressure, new aesthetic standards) [10, 14]. Some studies might indicate a biological involvement in BDD (volumetric brain abnormalities in the orbitofrontal cortex, anterior cingulate cortex, asymmetry in the caudate nucleus, greater white matter volumes, reduced D2/3 receptor availability in the striatum) [14]. Psychological traits (perfectionism, aesthetic sensitivity, behavioral inhibition reactivity) [15], and life events and developmental factors (childhood abuse, appearance-related teasing, bullying [11] or even cyber-bullying [13], humiliating experiences) were recorded in BDD; no evidence has yet elucidated whether GDP might display similar or completely different causes. The higher the discrepancy between the actual genitals and the ideal size of it, the more depression and shame was recorded [16]. Among the psychological predictors of body image dissatisfaction are age, low self-esteem, depression, and interpersonal sensitivity [17]; however there is a paucity of documentation regarding the etiology of GDP [5].

31.5 Clinical Manifestations of Genital Dysmorphophobia

Genital dysmorphic disorder, as an exclusive genital organ-focused BDD, will be treated distinctively in men with penile dysmorphic disorder and in women with GDP. The principal difference of these specific disorders, compared to BDD, is that the main, if not exclusive, preoccupation is the altered perception, dissatisfaction with the size, and shape of the genital organ, which causes shame and distress [9].

31.5.1 Penile Dysmorphophobia (PDP)

The altered perception of the adequacy of the normal external genital organ [1] might trigger persistent preoccupation, distress, and shame and interfere with various aspects of the personal life (leisure activities), avoidance behaviors (relations, intimacy), and interest for cosmetic/surgical procedures [12]. Concern with penis size is not a contemporary concern and the need of enlargement for the self-esteem, and to impress others dates back to primitive societies, being a sign of power and domination: Sadhus holy men in India; men from the Cholomec tribe in Peru; men from Dayak, Borneo; or men from the Topinama in Brazil used weights, holes, and even snake poison to enlarge their penises; presumably they had no GDP but had to clearly signal their power, superiority, and status [6].

PDP covers two issues: an aesthetic one (refers to the dissatisfaction with the size/shape of one's normal penis in flaccid state) and a functional one (dissatisfaction with the erectile size of the penis) [9]. It should be outlined that PDP is different from *small penis anxiety* (small penis syndrome) or micropenis (the size of the penis is below the norms of 2.5 standard deviations in adults, e.g., less than 9 cm length in stretched position, without further anatomical and physiological abnormalities, but multiple pituitary hormone deficiencies) [18, 19]. Men belonging to these three groups could be dissatisfied with their penis size and ask for penile enlargement, although only men with micropenis really have problems with the penis size. *Small penis anxiety* (SPA) is the worry regarding the size of the penis and differs from PDP, where the preoccupation is prominent, and includes significant impairment [16]. SPA involves a subjective reaction (anxiety), but not BDD or PDP, in which there is an overevaluation of the others penis size [16]. There are two main anxiety provoking situations in SPA: display of the flaccid penis in public situations and the display of the flaccid/erect penis with a sexual partner [20]. Men experience two kinds of shames regarding their penis size: external shame that derives from the negative scrutiny by others (accidental in changing rooms or by a sexual partner) and internal shame (the negative self-evaluation of the genitals) [20]. Therefore some safety-seeking behaviors are employed: the scanning of the environment for threats, camouflage, and avoidance of humiliating situations or intimate relations [16, 20]. Usually the sexual desire of these men is preserved, but erectile dysfunctions are more likely to occur in cases of decreased sexual satisfaction during intercourse [21].

31.5.2 Female Genital Dysmorphophobia (FGD)

The unique feature of female genitalia is that there is no direct visual contact, rather only by mirror check due to its hidden position and the pubic pilosity, with the exception of the obvious protruding labia minora. Therefore, a genital image is formed rather indirectly and many women do not know precisely how their genitals look [4]. With the growing influence of the media "perfectionism" or the genital reconstructive surgery websites, women are more interested to explore their genitals and to apply for corrective procedures [4, 13]. As the pattern of BDD states, women with FGD display repetitive mirror inspection and measure their genitals, being dissatisfied with the size, shape, position of different parts of the vulva, feeling ashamed, and avoiding exposure or intimate relations. Although the main concern regarding the anatomy of external genitalia refers to labia minora, other parts could also be subject of intense preoccupation: labia majora, the clitoral hood and prepuce, and mound of Venus, which are found either too thin, puffy, asymmetric, or protruding [4]. The reasons that motivate women to ask for corrective procedures are aesthetic (asymmetry, or abnormal length, shape), functional (discomfort during intercourse, sport), sexual (shame of discomfort during intercourse) [22], or a sort of coquetry to align to the pornography-promoted ideal genitalia [4]. The emotional discomfort of self-appearance and the social and sexual distress seem to be the strongest motivators for surgery [23]. The newly developed female genital cosmetic surgery claims that labiaplasty is requested by an increasing number of young women and even girls [22]. Pubic hair removal might also render more obvious real or imagined flaws of the vulva, for self-observation and others scrutiny, being considered the first step on the path to cosmetic reconstruction [4]. Psychological characteristics of women asking for labiaplasty revealed marked dissatisfaction with the appearance of their genitals, low overall sexual satisfaction, and lesser quality of life [5].

31.6 Clinical Management

31.6.1 Assessment

BDD patients are seldom willing to disclose their problems to mental health professionals because of reluctance, shame, poor insight, and preferring to seek cosmetic surgeons to "solve" their problem [11]. Confronted frequently with clinical unjustified demands for corrective genital surgery, surgeons need to detect and assess the genital image, satisfaction, and quality of life of these potential clients. There are some gender-specific screening tools especially dedicated to identify GDP in persons applying for genital correction: Cosmetic Procedure Screening Scale for PDD (COPS-P) [20] and Cosmetic Procedure Screening Scale for Labiaplasty (COPS-L), both derived from the COPS for BDD [5]. Other scales explore different aspects of body image (Male Genital Image Scale—MGIS) or the female-adapted scale [8], Beliefs about penis size-BAPS [20], Genital Appearance Satisfaction—GAS [5],

quality of life, combined scales which aim to assess the selection and surgical satisfaction (Augmentation Phalloplasty Patient Selection and Satisfaction Inventory-APPSSI) [2].

31.6.2 Differential Diagnosis

The most frequent diagnoses that should be ruled out are OCD (grooming rituals not driven by appearance flaws but due to contamination fears) and related disorders, e.g., excoriation, trichotillomania (skin picking, hair pulling that do not correct appearance), eating disorders (BDD is focused on body weight and shape, leading to abnormal-eating behaviors), social anxiety (social anxiety in BDD might be present as a result of the perceived flaws that could be negatively judged by others), depression (appearance concerns are not obvious and do not produce repetitive behaviors) [11], gender dysphoria (gender identity is the core issue and disgust toward the own genitals do not have aesthetic reasons but inadequacy to the desired sex), self-mutilation in pervasive personality disorders (impulsive behaviors due to modest impulse control may affect other body parts as well), schizophrenia with delusional BDD (the delusions are bizarre, along with hallucinations), nymphectomia (the mutilation of the clitoris is imposed to the subject by others), and body integrity disorder-apotemnophilia (the person wants his healthy limb to be amputated) [22].

31.6.3 Course and Outcome of GDP

The course is rather chronic and various comorbidities could arise (OCD features, social anxiety, depression, suicidality) [23]. Positive outcomes of corrective procedures were noticed more frequently in women after labiaplasty or in mild, moderate FGD [24]. The severe GDP are less influenced by corrective and other treatments, with common displacement of BDD symptoms [13].

31.6.4 Treatment Methods

Three types of treatments are so far pertinent for GDP, separate or combined: psychological, pharmacological, and corrective procedures. Although different minimally invasive surgical treatments seem reasonable as a last resort, this is a strong contraindication especially in persons with BDD, whose decision capacity is deeply skewed and the results often raise further discontent because of unrealistic expectations [22, 24]. Despite this, they will still be considered the first and/or unique therapeutic option by patients. There is a paradox: despite the fact that corrective procedures are highly controversial [1, 6, 24] and have no approval of the professional societies [6], there is an intense media promotion of sexual perfection that might be achieved by advanced technological methods and more safe procedures,

leading to high demands for these methods [1]. Persons, especially those with BDD, should be discouraged from seeking corrective treatments and be offered alternatives. Aesthetic plastic surgery in men with PDD is not objectively justified. The two aspects of penile augmentation aim at penile lengthening (penile extender—a non-invasive method [25]; or a variety of surgical methods—abdomino/pelvic liposuction, suspensory ligament dissection, skin flaps) and penile girth enlargement by injectable materials (fat, silicon, hyaluronic injections) or by graft procedures (dermal fat, allografts or venous grafts) [6]. These procedures may result in 1–2 cm penile lengthening and 2.5 cm augmentation of the penile girth [1, 6]. These results are often overshadowed by disappointing patient satisfaction and a decreased penis enlargement in an erect state [6]. Among the complications of penile enlargement surgeries are: infections, swelling, seroma formation, penile curvature, and necrosis [6].

Although all components of the female external genitals (mound of Venus, labia majora, clitoral hood, prepuce) could be the object of dissatisfaction, it is more often that the protrusion and asymmetry of labia minora are the most frequently demanded areas for cosmetic surgery, called labiaplasty. The psychosexual outcome after labiaplasty encourages this method to be recommended even in BDD persons [22].

Pharmacological treatments recommend selective serotonine reuptake inhibitors (SSRIs)—especially citalopram, escitalopram for their fast action, and clomipramine as augmentation eventually with buspirone [11]. For the delusional component, there is no evidence yet of suitable treatments.

As for the nonpharmacological approaches, psychoeducation and CBT might be helpful [10]. Persons demanding cosmetic surgery should be carefully screened for BDD, informed about the potential risks of surgery (genital disfigurement, surgical complications and dysfunctions) and offered information from a multidisciplinary team regarding the appropriateness of different approaches [13]. It should be taken into consideration that corrective procedures might register positive outcomes only in mild to moderate GDP patients [24], as the rest could shift their focus of dissatisfaction from one feature to another, becoming polysurgical addicts.

Case Report 1

A 23-years-old man is referred by the dermatologist to the surgeon after injection of lipstick into the glands and the penile body and the painful tumescence of the penis and urinary problems. After the surgical excision of the critical parts and the prescription of antibiotics and anti-inflammatory drugs, the patient was referred for a psychological and psychiatric assessment. The main complaint was an enduring dissatisfaction with the size (too small) and the shape of the penis, especially the glans, considered asymmetric in flaccid and erect states. This situation triggers repetitive checking, measures of the penile length and girth, shame, comparison with male porn movie stars, avoidance of naked exposure in changing rooms, and intimate

relationships. The problem began during adolescence, when sport mates had some teasing remarks regarding his intimate development. Since then his concerns have focused on the penis size and muscle development. Despite the reassurance of several measurements that the size/girth and shape were within the normal ranges, the patient continued checking, experiencing feelings of inferiority, disgust, avoidance of possibly critical situations, and engaging in diverse activities that could enlarge the penis (weight hanging systems, rings, stretching, and pumping sleeve). Being dissatisfied with the results, he asked several cosmetic and aesthetic surgeons to perform enlargement procedures. The denial of these specialists caused him to perform the injection of lipstick in the gland and penis. Even after this self-injury and surgical complication, the patient remained reluctant to a psychoeducational approach and had difficulty in accepting the refusal of several cosmetic surgeons to perform the requested corrective procedures of penile augmentation. No further information about the patient's evolution is available since there was a negative attitude towards the multidisciplinary team, which offered a psychometric, psychiatric evaluation and the explicit refusal of the mixed psychotherapeutical (CBT) and psychopharmacological treatment (low doses of SSRIs).

Case Report 2

A currently 32-year-old woman reported beginning to be intensely preoccupied and dissatisfied with her nose, face, and too small breasts during adolescence, resorting to mirror checks and avoidance behavior. She began asking for cosmetic and surgical procedures at the age of 20 years and underwent multiple facial corrective interventions (repetitive rhinoplasties, lip augmentation) with little improvement of her body image in spite of good feedback. After more than 7 years of good marriage serious marital problems occurred, with frequent quarrels due to the infidelity of her husband. She was convinced that she was unattractive and thought that her husband might reject her due to protrusive minor labia, engaging in mirror checks and avoidance. Due to the previous antecedents of probable BDD regarding body part flaws, cosmetic surgeons were reluctant in performing labiaplasty. "Doctor shopping" and repetitive refusal triggered suicidal threats, being referred to a psychiatric service, where the BDD and relational problems were identified and a combined CBT and pharmacological (SSRI, mood stabilizer) approach were employed, with adequate behavioral stability but reduced improvement of BDD symptoms.

31.7 Key Messages

- Genital dysmorphophobia, with the two gender-specific types, is so far recently described and not yet recognized and included into the nosologies.
- Literature rather reports operative techniques or other corrective procedures, which are not currently standardized and overshadowed by dissatisfaction and complications.
- In order to prevent modest outcomes, poor functional and aesthetic results, legal consequences, and multidisciplinary teams should apply validated preoperative screening tools, devote adequate time to patients to explain the unrealistic expectations of corrective genital procedures, discourage them due to skewed decisions, and offer of alternatives (psycho-education, counseling, CBT, medical treatment).

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Persistent Genital Arousal Disorder

32

Farai Nyatsanza and David Goldmeier

32.1 Introduction

Persistent genital arousal disorder (PGAD) is a condition mainly seen in women but can occur in men. This is characterized by spontaneous and often unrelenting subjective genital arousal in the absence of sexual desire or stimulation [1]. This condition was first accurately described by Leiblum and Nathan in 2001 [1]. It was initially called persistent sexual arousal syndrome (PSAS) but was renamed to PGAD as women did not see it as a sexually related condition [2]. *Currently, the Diagnostic and Statistical Manual for Mental Disorders-fifth edition (DSM-5)* and *International Classification of Diseases-11th edition (ICD-11)* definitions of sexual dysfunction do not describe all sexual problems experienced by patients and this includes PGAD [3]. The International Society for the Study of Women's Sexual Health (ISSWSH) includes criteria for PGAD that are based on expert opinion [3]. Table 32.1 shows diagnostic criteria for this condition.

It is important to differentiate PGAD from conditions such as high sexual desire or compulsive sexual behavior as PGAD individuals typically do not reveal elevated desire nor a failure to control sexual impulses or urges [6] (see Chap. 30 for information on compulsive sexual behavior).

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Table 32.1 Persistent genital arousal disorder diagnostic criteria [4, 5]

• Symptoms of intrusive and persistent genital arousal such as genital fullness and sensitivity with or without nipple fullness or swelling
• Symptoms of arousal are unrelated to sexual desire
• Symptoms of arousal do not resolve with repeated masturbation and orgasm does not relieve symptoms
• Symptoms are experienced as unwelcome, intrusive, and unwanted
• Symptoms are described as distressing

32.1.1 Prevalence

It is difficult to ascertain accurate prevalence for PGAD as some sufferers may not present due to fear of ridicule, disbelief, or inaccurate diagnosis of hypersexuality or psychosis. Fewer than 1000 cases have been described in literature of which the majority are in web surveys and case reports [7]. However, some evidence suggests it may be as common as about 1 in 100 patients in a sexual health clinic [8]. Jackowich and Pukall also found that in a sample of 1641 undergraduate students at a Canadian university, 0.6% of women and 1.9% of men endorsed PGAD criteria to at least a moderate degree [9].

32.2 Clinical Manifestations of Persistent Genital Arousal Disorder

Symptoms commonly occur in the vagina, labia, and clitoris or a combination of all three. Sufferers tend to complain of genital throbbing, contractions, spontaneous vaginal and clitoral pain, as well as sexual pain on vaginal penetration [10]. Original and current triggers remain varied and include physical stimulation such as sexual intercourse or masturbation or psychological stress and anxiety [11]. Other stimuli such as sitting, tight clothing, vibrations of motor vehicles, and horse riding can exacerbate symptoms [11]. Relieving factors include distraction, masturbation, intercourse, and cold compresses [11].

32.3 Etiologies of Persistent Genital Arousal Disorder

There is no good data on etiology of PGAD, and most of what is known is derived from case reports and web-based surveys. We describe possible etiologies that have been postulated.

32.3.1 Psychological

Leiblum et al. in 2005 postulated that PGAD develops when anxious individuals become overly focused on spontaneous genital arousal [10, 12]. This then develops into a vicious cycle of increased anxiety which decreases sensory threshold,

increased sympathetic tone, and more genital arousal [10, 12]. This was based in part on an online survey of PGAD sufferers which show high rates of mental health issues such as depression, panic attacks, and obsessive-compulsive disorder. It also showed high rates of previous sexual abuse in sufferers [12]. Other authors have supported this etiology of psychological factors resulting in a negative perception of genital sensations. In a review of case reports, three out of the six patients had been diagnosed with obsessive-compulsive disorder [13].

32.3.2 Peripheral Neurology

Waldinger et al. suggested that PGAD is a neuropathy of the pudendal nerve and dorsal clitoral nerve [14, 15]. This was based on evidence found from studying 18 patients with PGAD. It is suggested that C (small and unmyelinated) and A delta (myelinated) pudendal and/or dorsal clitoral nerve dysfunction, possibly caused by compression or irritation, underlies PGAD. He also noted that PGAD patients complained of overactive bladder and had restless legs syndrome [14, 15].

32.3.3 Central Neurology

There have been a few case reports of central nervous pathology such as strokes and arteriovenous malformations causing PGAD [16]. Another case report from *The Lancet* describes a 44-year-old woman with arteriovenous malformation that resulted in periodic unprovoked sensations of spontaneous orgasm [17].

32.3.4 Tarlov Cysts

There has been an association between Tarlov cysts and PGAD. Tarlov cysts are outpouchings from perineurium that occur at distal limit of dura mater that covers dorsal roots of S2 and S3 which convey sensory information from pudendal and pelvic nerves. These have been associated with various symptoms such as genital, buttock, leg, and lower back pain. In a small audit, there was a high incidence of Tarlov cysts in women with PGAD in comparison to the general population, making it a possible cause for PGAD [18].

32.3.5 Pharmacology

Other authors suggest that initiation or withdrawal of the selective serotonin reuptake inhibitors (SSRIs) may be linked to PGAD, and proposed mechanisms include rebound anxiety upon withdrawal of medication, increased atrial natriuretic peptide (ANP), genital vasodilation following antidepressant withdrawal, and possible return to baseline sexual desire which results in newfound awareness of genital sensations suppressed by medication [2, 19, 20].

32.3.6 Dietary

There has been a case of a 44-year-old woman with menometrorrhagia and a sensation of chronic pelvic congestion related to massive ingestion of soy products a month prior to her symptoms. The diet was modified and her symptoms settled. They proposed her symptoms were due to hyperestrogenic state from soy phytoestrogens [21].

32.4 Clinical Management

32.4.1 Diagnosis

In order to make a diagnosis of PGAD, the patient should complain of the following: unwelcome, involuntary, and intrusive sexual arousal/dysesthesia that is unrelated to sexual desire. The symptoms persist for hours, are unrelieved by orgasms, and are at least moderately distressing [1, 11]. A full medical history should be taken to ascertain original triggers, current triggers, and relieving factors [11]. A psychological assessment should be carried out as well as ascertaining history of previous abuse including nonconsensual sex. It is vital to assess current relationship status and whether the patient needs to be reviewed together with their partner if deemed appropriate. A full drug history is also required as medication may play a role in management (see Chap. 9 for details on sexual interview and history taking).

As one of the possible etiologies is a pudendal nerve neuropathy, *lower genital examination* is an important as it may demonstrate hyperesthesia and genital varices. Examination should focus on the presence of clitoral, vulvar, or labia hyperesthesia, engorgement, and varices. A bimanual examination is required to assess for pelvic floor tone and pelvic masses; however, examination may be unremarkable. Lumbosacral and pelvic magnetic resonance imaging (MRI) or Doppler ultrasound (US) may be required to assess for pelvic masses, varices, and Tarlov cysts.

Case Report 1

June is a 55-year-old postmenopausal lawyer who has been married to John for 30 years. She found work very stressful 12 months ago, and after seeing her family practitioner, she was diagnosed as having a mixed affective disorder with predominantly depressive features. About 3 months after starting fluoxetine (SSRI), she felt better, possibly because she went to the gym five times a week where she did a lot of "spinning" on an exercise bike. She therefore came off the fluoxetine. A day after she stopped fluoxetine, she had intercourse with her husband and found that she had a vaginal orgasm for the first time ever. The following day, she noticed she had a lot of spontaneous vaginal discharge and later on developed a tingling sensation in her clitoris and vulva

that she described as "like being sexually excited—except I wasn't." She felt it like a throbbing that lasted all day. June became highly anxious about this unwelcome genital arousal and asked herself: "Why is this happening, maybe I have some sort of infection or cancer in my genitals." These symptoms persisted for 8 months until she was seen in the clinic where she said she had symptoms daily, which were worse on sitting and also exacerbated by worrying thoughts about the condition such as "Will I ever get rid of this, I cannot continue living like this." Masturbation to orgasm gave relief only for a minute or two so she stopped doing that and had not had sex with her husband for 8 months. However, she found that distraction such as concentrating on her legal work helped her.

Examination showed an anxious patient who had depressive features and fleeting suicidal ideation; however, she said she would not act on these because of her family. Sensory testing showed hyperesthesia in the distribution of the dorsal clitoral nerve and in labia bilaterally. Neurological examination was otherwise normal. There was no clitoral priapism. A Doppler ultrasound showed no pelvic masses or varices.

Treatment consisted of putting her onto duloxetine 60 mg/day (selective serotonin and norepinephrine reuptake inhibitor (SNRI)), seeing a psychologist who challenged her catastrophic ideation around PGAD. She was also taught mindfulness which enabled her to more objectively notice her symptoms and to "sit with" them rather than be sucked into them. Additionally, she was referred to a specialist pelvic floor physiotherapist who found her pelvic floor muscles to be hypertonic and gave instruction to June how to release this tension.

Two months later, June's symptoms had fallen from daily to twice a week and the intensity from an initial 9/10 to 3/10.

Understanding June's case:

PGAD appears to be precipitated by and associated with a number of factors which in June's case were coming off fluoxetine and spinning which can press on the pudendal nerve or its branches. Apart from PGAD and pain, pudendal neuralgia can present with excessive vaginal discharge and newly acquired ability to orgasm vaginally. Anxiety and negative cognitions may make the PGAD worse. Sensory testing may help to define a pudendal neuralgia underpinning the PGAD. Ideally, a lumbosacral and pelvic MRI scan should be undertaken in all patients (to exclude Tarlov cysts and intrapelvic masses pressing on the pudendal nerve). However, these are expensive and the authors have found that Doppler ultrasounds are robust screening tools for both pelvic masses and varices—both of which can rarely be associated with PGAD.

SSRIs and SNRIs may be useful as they can both help neuropathic pain and affective disorders. Mindfulness-based cognitive behavioral therapy (CBT) may also be very useful. Pelvic physiotherapy can "release" overactive muscles which can cause pudendal nerve entrapment.

Case Report 2

Polly is a 17-year-old student who is doing exams so that she can attend a university next year. While studying, she begins to notice her clitoris is "filled up and pounding." It can last for hours and is much worse while she is stressed and reading her books. At night, when she relaxes, it goes away. She has never been sexually active with a partner. However, after a second interview, she states that as an 8-year-old, a 16-year-old male neighbor babysat her and "did things to me down there" on a regular basis. Looking back on this, she told no one, felt very upset and guilty, but said she derived some pleasure from it. At the time, she had nightmares about it, but these had faded. Until she developed her genital symptoms, she had not been anxious or depressed. However, every time she goes to study now, she becomes highly anxious—both because of the work she has to do and because of the fear of the genital symptoms.

Genital and neurological examinations are normal as in Doppler US. However, she recalls that she now remembers the nonconsensual sexual contacts more vividly than before.

Treatment consists of seeing a psychologist for trauma associated with nonconsensual sex who suggests eye movement desensitization and reprocessing (EMDR), plus mindfulness-based cognitive behavioral therapy (CBT) so that she understands that she is perceiving normal genital arousal which is being exacerbated by anxiety in that it cognitively focuses her thoughts on her genitals and the past trauma. She is also given amitriptyline 40 mg which she says helps her relax. A pelvic floor physiotherapist helps her to relax her muscles which Polly finds useful. After a month, her symptoms have improved drastically.

Understanding Polly's case:

Polly's PGAD is caused by her noticing normal genital arousal. Her anxiety and past trauma cause cognitive narrowing onto the genitals, thus exacerbating her PGAD.

32.4.2 Treatment

There are no clinical trials on management of PGAD; hence, the level of evidence when it comes to this is based on case reports. As per the cases discussed above, management of PGAD needs to be patient-centered and involves a holistic approach. Treatment should focus on identifying reversible causes, and management often requires a multidisciplinary approach involving physiotherapists, psychologists, physicians, and radiologists.

- *General measures*: Patients may have identified potential triggers and exacerbating factors, for example, sitting for prolonged periods, tight clothing, and high intake of soya. Avoiding these may provide relief from symptoms. Masturbation may provide some relief; however, this can also worsen symptoms. Depending

on examination results, it may be pertinent to treat genital dermatosis, repair genital prolapses, and consider embolization of ovarian veins [5].

- *Psychological therapies*: If anxiety, depression, history of trauma including sexual abuse, and obsessive-compulsive disorder are identified during the consultation, it is important to manage these as they may contribute to symptoms of PGAD. Mindfulness-based cognitive behavioral therapy (CBT) has been found to be a useful tool for genital pain as it allows one to observe the sensations of PGAD rather than experience them [11, 22]. CBT would aim to address maladaptive beliefs and dysfunctional cognitions about sexual expression and genital changes [5]. Mindfulness meditation has been found to be helpful in a variety of conditions as it reduces the emotional and distressful components of symptoms and makes patients more accepting of their chronic problems [22–24].

  In one online study, a past history of sexual abuse was present in up to 50% of women with PGAD. Not surprisingly, symptoms of PGAD may reignite or exacerbate symptoms of post-traumatic stress disorder. In the experience of one of the authors, a combined mindfulness and EMDR approach (or other trauma-focused therapies) is useful as an adjunct to treatment [25].
- *Medications*: Withdrawal of SSRIs has been shown to be a rare cause of PGAD in web surveys [20]. However, case reports have shown antipsychotics, tricyclic antidepressants, SNRIs, and SSRIs have been used in management of patients with success. Quetiapine and dopaminergic agents, for example, varenicline, have also been used with success [8].
- *Physiotherapy*: One case report of a woman with PGAD described relief of symptoms after massaging and manipulation of pelvic floor muscles; hence, referral for pelvic floor physiotherapy is vital for some sufferers [26].
- *Others*: Other interventions that have been tried with success include transcutaneous electrical nerve stimulation (TENS). Cases in literature have shown that electroconvulsive therapy (ECT) when used to manage severe depression and ECT was helpful in managing depression and PGAD [27].

32.5 Key Messages

- There are no clinical trials on PGAD; hence, etiology and management is based on web surveys and case reports. Overall, it is accepted that PGAD has been in existence for a while but has only recently become recognized as a disorder.
- It is important that physicians are aware of this condition as patients can present in a variety of specialities including psychiatry. Awareness of PGAD would allow for patients to be managed appropriately instead of being ridiculed which is what some patients may fear.
- Management is dependent on findings during history taking, examination, and testing. It is important to treat medical conditions that may potentially exacerbate symptoms, for example, depression.
- Overall management can include a variety of interventions including medication, mindfulness CBT, and pelvic floor physiotherapy.

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Post-orgasmic Illness Syndrome

33

Joanne Bassett and David Goldmeier

33.1 Introduction

In 2002, a new illness syndrome was described by Waldinger and Schweitzer [1]. They presented two men who became ill after orgasm/ejaculation. These men suffered quite severe cognitive dysfunction plus other systemic symptoms that persisted for up to a week. They named it post-orgasmic illness syndrome (POIS) [1]. It is likely before that time sufferers were labeled as having some form of psychiatric illness. This may have included various forms of somatoform disorders such as hypochondriasis or body dysmorphic disorders.

Since the initial identification in 2002, more case reports, small studies, and a web survey have appeared in the literature further describing patients with POIS [2–5]. They are almost always men, but women suffering from POIS symptoms have also been reported [6, 7]. In order to limit their symptoms, patients with POIS often refrain from achieving orgasm and may avoid sexual scenarios completely. Those who do not so refrain may have a greatly impaired quality of life.

POIS is likely a very uncommon illness and is deemed a rare disorder by the National Institutes of Health Office of Rare Disease Research [8]. The etiology is poorly understood but is probably multifactorial [7, 8]. There are no generally effective treatments at present, but a variety of medications and immunotherapies have been suggested in available resources/studies [7–9]. To date, a total of 183 POIS patients have been described in the literature [2].

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33.2 Clinical Manifestations of Post-orgasmic Illness Syndrome

Waldinger classified POIS symptoms into five major criteria based on their clinical experience with a further 45 patients [6] (Table 33.1).

Many men will either restrict or abstain from intercourse. They may also have learned to not orgasm but restrict sexual interaction to arousal only [6]. Work and social activities are often planned around periods of impaired cognitive function and illness arising from orgasm. Many men with POIS make a positive decision not to enter new romantic relationships, while those in relationships may curtail sexual activity prior to the point of ejaculation [6]. Some of the patients described by Waldinger developed allodynia in previous surgical scars after orgasm. Over half of the patients in Waldinger's studies complained of rapid ejaculation—but this may have been secondary to long periods of sexual abstinence between ejaculations [6].

Our own clinical experience suggests that affected patients who attend our department mainly complain of cognitive issues such as impaired concentration, dysphasia, "brain-fog," flulike states and muscle aches rather than other symptoms such as rhinitis and eye watering.

The exact prevalence of POIS is not known—from Strashny's 2018 report and web survey, there are an estimated 183 cases of POIS which have been studied in current available literature [5]. The paper also alludes to an estimated 1200 people accessing online forums which provide relevant information about POIS—there are likely to be a significant number who subscribe to more than one forum, making true numbers even less [5]. For his web survey, Strashny recruited 127 male responders over the age of 18 (plus 2 women who had their POIS diagnosed by physicians but were not included in the study data). The mean age of participants was 34 and around half of the men were in current romantic relationships. Eighty-five percent

Table 33.1 Post-orgasmic illness syndrome diagnostic criteria by Waldinger [6]

All the five criteria have to be present
• Criterion 1: One or more of the following: mood disturbance, extreme fatigue, irritability, hyperacusis, memory and concentration problems, word-finding problems, muscular aching, feeling feverish, nasal congestion, or watery/itchy eyes **Criterion 1 was further divided into anatomic clusters, one of which if present would fulfill Criterion 1. These included a flulike cluster, headaches, eye symptoms such as irritation or wateriness, nasal congestion or discharge, throat symptoms, and finally muscular problems such as tension or heaviness*
• Criterion 2: All symptoms started from within seconds to hours after ejaculation (whether at intercourse, masturbation, or nocturnal emissions)
• Criterion 3: Symptoms occurred in >90% of orgasms
• Criterion 4: Most symptoms dissipate by 2–7 days after ejaculation
• Criterion 5: Symptoms disappear spontaneously

fulfilled either four or five of Waldinger's criteria. Eighty to ninety percent of the men reported cognitive- or head-related symptoms always or occasionally—which is in keeping with our own clinical experience. The study also added a symptom severity scale to identify the impact of the condition related to physical pain and interference with daily activity and work. Overall, the average severity score was 7 on a 10-point scale [5].

POIS is recognized as a rare disorder by the National Institutes of Health Office of Rare Disease Research [8]; however, as more information on the disease and its symptomatology becomes available, we may see an increase in the number of cases identified by clinicians. In an age where the public increasingly uses technology for self-diagnosis, we may also see men presenting for assessment who have accessed available forums and published literature.

Case Report 1

Peter is a 35-year-old IT consultant who attended our clinic because of exhaustion after intercourse with his girlfriend who he has been with for 3 years. He explains with more than a note of desperation that because of this problem, he has not had any sexual contact with her for 5 months, in spite of having good levels of sexual desire and spontaneous erections. This is putting a severe strain on their relationship.

On closer questioning, he told us that this problem came on a year ago. About 5 minutes after orgasm, he finds it hard to concentrate, has problems finding words to express his ideas, and generally felt his mind is "a fog." He also has mild muscle aching particularly in his shoulders. These symptoms last for 5 days and then he spontaneously recovers.

He has no history of allergies and is otherwise well apart from anxiety which he has had since teenage years. There is no phobic element to this, he is not depressed, and he has no features of obsessive-compulsive disorder. The anxiety is manifested by overbreathing, intense fear felt mainly in the chest and neck, some hand shaking, and initial insomnia. He feels it got out of hand about 18 months ago when there were stresses at work. After orgasm, the anxiety symptoms are replaced by the constellation of symptoms as described above.

He says he has no time for psychological therapies but is happy to take medication.

Six weeks after taking sertraline 100 mg a day, his anxiety has markedly improved. However, his sexual desire has diminished, so that the couple now has sex once a month with Peter ejaculating at the end. His post-orgasm symptoms have reduced in severity by 50% and now last 2–3 days.

Case Report 2

Steven is a 28-year-old journalist who has suffered from severe symptoms after sexual activity since his sexual debut at masturbation with orgasm aged 14.

His school years were plagued by lack of concentration after orgasm. However, if he was sexually abstinent, he performed well. The school was keen to exclude Asperger's syndrome and ADD. When tested between ejaculations, he was found not to have these conditions and to have an IQ of 150.

He has never had a sexual relationship with anyone but is attracted to both men and women and has learned to masturbate but to stop prior to orgasm. He tells you he has declined many invitations to further relationships because of his sexual problem.

When he does orgasm, symptoms come on 30 minutes later. These consist of a "mental fog," inability to concentrate, and difficulty in stringing words together. He also tends to have a runny nose and aching muscles. These symptoms last for 4 days and then he spontaneously recovers.

He has a mild peanut allergy and hay fever.

Over the years, doctors have labeled him as having a "psychosomatic illness," personality disorder, and a monosymptomatic delusion.

He was very relieved in 2012 to find an online group of similar sufferers and learned that his condition is likely to be POIS.

He has tried a number of treatments that have been discussed in the POIS forums, including nicotinamide and progesterone—both of which did not help.

After being assessed in our clinic and in discussion with the patient, he was given high-dose levocetirizine (an antihistamine) on the assumption that his POIS was allergy related. It did not help.

He later requested a course of doxycycline (an antibiotic), having read that orgasm increases natural killer cell numbers in the blood. After 6 weeks of this, he feels there may be marginal improvement in his symptoms having orgasmed once in that period.

He remains single and tries his best not to have a sex life. He continues to enjoy his work.

33.3 Etiologies of Post-orgasmic Illness Syndrome

Although the true etiology of POIS has not yet been identified, there are a number of hypotheses as to the etiology of POIS. Waldinger et al. proposed in a 2011 study of 45 men with POIS that the condition is of an autoimmune or allergic nature, with a man being hypersensitive to his own seminal fluid coming into contact with T-lymphocytes within cells in a disrupted urethral lining [3]. Of the 45 men in Waldinger's study, 33 agreed to undergo skin prick testing (SPT) with autologous semen (diluted to 1:40,000 concentration) with a control of intracutaneous saline. Twenty-nine (88%) of these men had a positive SPT (Wheal >5 mm at 15 min) with

a corresponding negative saline skin prick test (Wheal <2 mm at 15 min). This led the team to propose that POIS was likely a mixed Type 1 and Type 4 hypersensitivity reaction triggered by ejaculation [3]. A further paper from Waldinger suggests that there have subsequently been three patients who have been diagnosed with POIS after successful sterilization, leading him to suggest the immunological reaction may be related to secretions produced by prostatic tissue (and its equivalent in women) rather than to spermatozoa [6].

A subsequent case report from Jiang et al. in 2015 found that in a Chinese patient diagnosed with POIS, specific IgE levels for seminal fluid were not significantly raised. They also used three healthy controls who showed no IgE response to autologous seminal fluid but interestingly had a more pronounced positive skin reaction than the affected patient [4]. They hypothesize that POIS may be related to chemical imbalances within the brain producing an "opiate withdrawal effect" due to high consumption of endogenous opioids during orgasm, in particular the μ-opioid receptor system. Their patient also had borderline obsessive-compulsive disorder, so it was questioned whether psychological factors may increase awareness of changes within the body [4].

Two cases published by Ashby and Goldmeier in 2010 suggest, in contrast to the theories above, that the symptoms were more similar to those experienced in cytokine release [2]. As the full neurotransmitter response to arousal and orgasm is not yet known, it could be hypothesized that an abnormal cytokine response or neuroendocrine disorder may produce POIS symptoms. This theory is supported by a study by Haake et al. in 2004 monitoring cytokine and lymphocyte production in men who were masturbating to orgasm found from continuous blood sampling during masturbation that absolute number of leucocytes (especially natural killer cells—CD3–16+, CD56+) and prolactin levels were significantly increased after orgasm [10].

From the current data, it is the authors' opinion that POIS cannot be plausibly identified as purely an autoimmune condition to semen or prostatic secretions. From clinical experience, there are significant rates of men with diagnosed POIS who do not present with rhinitis/eye watering in keeping with Waldinger's original primary diagnostic criteria. There are some patients who present with anxiety and depression, with a suggestion that management of underlying anxiety and depression may lead to an improvement in reported symptoms. However, a number of patients with POIS vehemently deny that POIS has any psychiatric etiology. Further studies to assess normal and abnormal immune functions and cytokine response are needed to determine the true etiology of this rare illness. In Ashby and Goldmeier's paper, one patient had neuropsychological testing at various times when POIS symptoms were absent or present with no significant difference in scores [2].

33.4 Clinical Management

While there are no current guidelines on the management of POIS, the published literature has a variety of suggestions for management strategies. Waldinger et al. (2011) published a study of hyposensitization in two males with POIS by administration of

subcutaneous injections of autologous semen over 3 years at reducing intervals [11]. Self-reported outcomes suggested a 60–90% reduction in symptoms over a period of 15–31 months. One study participant also had a significant increase in his intravaginal ejaculatory latency time (IELT) of 20 seconds to 10 minutes after 3 years [11]. It is important to note this was not a randomized control trial, and the small participant number means this treatment modality cannot be confirmed.

Kim et al. report a case in 2018 of a male patient who had previously suffered from significant flulike symptoms related to masturbation and orgasm responding well to intralymphatic immunotherapy. This involved injection of autologous semen into an inguinal lymph node at a dilution of 1:40,000 initially, with concentrations gradually increasing to response. After five rounds of treatment, the patient had a significant improvement or resolution of his previous POIS symptoms which was sustained at 8 and 15 months after the first treatment [12].

Pharmacological treatments such as benzodiazepines, selective serotonin reuptake inhibitors (SSRIs), and antihistamines have all been suggested as options for treatment of POIS. Ashby and Goldmeier successfully treated a patient with nonsteroidal anti-inflammatories (NSAIDS) [2]; however, this has been unsuccessful in other cases. Online forums such as the POIS center suggest a variety of herbal/alternative therapies including olive leaf, niacin, and saw palmetto [9], though none of these have been studied to date.

A 2010 case report by Dexter suggests that in a man presenting with postcoital headaches, exposure to progesterone present during his wife's pregnancy may have alleviated his symptoms. The patient was subsequently controlled with norethisterone [13]. There are no other studies at present which look at the use of progesterone in managing POIS.

It is clear that further research into the etiology and management of POIS is needed to be able to form clear guidelines for future practice. The current literature covers only a small number of patients, and a lack of randomized control trials means there is no current accepted treatment method for managing affected patients.

33.5 Key Messages

- Post-orgasmic illness syndrome is a rare condition causing significant neurocognitive disturbances and allergic-type symptoms in affected patients.
- There are currently an estimated 183 cases in published literature, and 1200 patients subscribed to online forums discussing the condition [5].
- While the etiology of POIS is not yet known, there have been a variety of suggested theories including allergic reactions, autoimmune responses, and abnormal cytokine responses to seminal fluid.
- Management of POIS is currently unclear. There have been a small number of case reports and journal reviews suggesting different methods with varying degrees of success.
- Further research is needed in this area to confirm the pathogenesis and management of this rare condition.

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