Chapter 15

Sexual Health

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Key Points

- Hypoactive sexual desire among men should be assessed by examining their medication regimen, free and total serum testosterone levels, and overall health status. Treatment should involve addressing these medical issues and collaborating with an experienced sex therapist who practices cognitive-behavioral therapy (strength of recommendation: C).
- Assessment of MED should include a review of health and medical risk factors, including vascular disease. Oral medication (e.g., sildenafil) may be helpful in most cases and is the best first-line of medical intervention, but in refractory cases this should be combined with treatment from a trained sex therapist (strength of recommendation: B).
- Men who are concerned about PE may find it helpful to take clomipramine, paroxetine, sertraline, or fluoxetine. Treatment may be enhanced by assistance from a sex therapist (strength of recommendation: C).
- Cases of delayed ejaculation or male orgasmic disorder (MOD) require a thorough evaluation by a medical doctor and a sex therapist. Men who are already taking medication may need a change in the dosage of their medicine or a change in regimen (strength of recommendation: C).
- Reports of men experiencing pain during sexual activity are relatively uncommon and varied, making it difficult to generate treatment guidelines. A multidisciplinary approach to assessment and treatment is paramount (strength of recommendation: C).
- Men with compulsive sexual behavior may need medication for a mood disorder or medication for obsessive-compulsive-type tendencies (e.g., fluoxetine). Medication can be a critical component of treatment in these cases, but an appropriate sex therapist should be involved (strength of recommendation: C).

Introduction

Men's sexual health is a broad topic that can encompass a wide range of sex-related issues. The focus of this chapter will be on sexual dysfunction with some additional attention to compulsive sexual behavior and paraphilias. There are four general categories of sexual dysfunction, largely based on the Masters and Johnson sexual response cycle[1]: sexual desire disorders, sexual arousal disorders, orgasmic disorders, and sexual pain disorders. For men, the corresponding diagnoses include hypoactive sexual desire disorder (HSDD), sexual aversion disorder, male erectile disorder (MED), premature ejaculation (PE), male orgasmic disorder (MOD), and dyspareunia. Most research on male sexual dysfunction focuses on MED or PE, presumably because these are the most common sexual problems among men. Yet, a sizable number of men experience low sexual desire and more and more men are reporting problems related to orgasm.

In addition to the symptoms for each specific sexual dysfunction, the standard definition of any sexual dysfunction using the diagnostic criteria in the fourth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV)[2] includes a notation that (1) "the disturbance causes marked personal distress or interpersonal difficulty" and (2) "the sexual dysfunction is not

better accounted for by another disorder, except another sexual dysfunction, and is not due to the direct effects of a substance (e.g., drugs of abuse, medication) or a general medical condition." Situational or acquired sexual problems can have important implications for the diagnosis and treatment of sexual dysfunction, making the need for clinical judgment critical.[3] The DSM-IV definition makes provisions for these instances by including four types of sexual dysfunction: (1) *lifelong type*, in which the person has always experienced the problem; (2) *acquired type*, in which the problem developed after a period of normal sexual functioning; (3) *generalized type*, in which the problem occurs in all situations and with all partners; and (4) *situational type*, in which the difficulty occurs in some situations and/or with some partners.[2,4] A client may receive two of these criteria (i.e., lifelong or acquired type and generalized or situational type). Clinicians may indicate whether the condition originates from psychological factors or a combination of primary psychological factors and a secondary medical condition or substance use.[2] These broad labels hint of a complex and multifaceted etiology in sexual dysfunction.

Brief Overview of History, Theory, and Research of Sex Therapy

The short history of sex therapy[5] started with psychoanalytic perspectives in the late 1960s and changed to a mix of behavioral, social, and cognitive perspectives over the following two decades.[4,6,7] Advances in medicine, increasingly complex clinical presentations, and a bias toward medical interventions have led to a medical focus in treating almost any type of sexual dysfunction.[3,7–10] The psychological versus medical debate of etiology represents a false dichotomy, however, and most scholars recognize the need to take an integrated and multidisciplinary approach to sexual health.[11] In other words, rather than focus on purely psychosocial causes or purely medical causes of sexual dysfunction, healthcare providers should conceptualize, assess, and treat all medical and psychological factors relevant to the sexual difficulty in men.[12] An interdisciplinary team approach to treating sexual dysfunction should include family physicians, psychiatrists, sex therapists, and physical therapists, depending on the nature of the problem.

Unfortunately, regardless of theoretical orientation or treatment approach, there is only modest evidence for empirically validated treatments of sexual dysfunction.[13] Many studies of sexual problems do not use rigorous research methodology, making it difficult to determine the efficacy of the intervention techniques. Typically, outcome data are compared with baseline data to determine treatment efficacy, and comparisons are not made between groups.[14] The challenge of conducting research in clinical settings continues to be formidable, particularly for a sensitive issue such as sexual dysfunction (e.g., limitations in monetary support for staff and resources, obtaining adequate numbers of participants, ethical issues in obtaining a control group). Thus, sex therapy research tends to lack large, well-designed outcome studies that include treatment manuals and waiting list or placebo control groups.[7,13] The lack of funding for adequate sex therapy research is a major contributing factor to this empiric stagnation, leading to a large number of modest outcome studies.[13] Wiederman[7] suggests that integrating sex therapy into other clinical domains, where issues of sexuality are generally ignored, may lead to greater research support and empirically validated outcome studies, which could also lead to better clinical outcomes.

This brief overview of the history of sex therapy research and treatment should serve as a backdrop for each sexual dysfunction highlighted in this chapter. In short, there are many theoretical and therapeutic orientations, but very few data to substantiate empirically validated treatments. The tension between medical and psychosocial causes and treatment of sexual problems needs to mature into a multidimensional, interdisciplinary approach to assessment and treatment of sexual dysfunction.

Hypoactive Sexual Desire Disorder and Sexual Aversion Disorder

The study of HSDD has been limited to the last three decades, having been first identified and described by Kaplan and Lief independently in 1977.[3] Persons with HSDD do not seek sexual gratification, behave as if they have no sex drive, and may fail to initiate or respond to sexual expressions.[15] Sexual aversion disorder is related to HSDD but involves an extreme distaste or avoidance of any sexual activity. There is less research on sexual aversion disorder, but it is often diagnosed among women, particularly those with histories of trauma.[16] Men with

a history of trauma may become averse to sex, but the paucity of data on this topic precludes any definitive conclusions. Therefore, this section will focus exclusively on HSDD among men.

Although the incidence of HSDD in the general population is unknown, 31–55% of couples at sex therapy clinics report HSDD.[15] The disorder currently appears to be one of the most common presenting complaints in sex therapy clinics[17–20] and has often been linked to other sexual dysfunctions.[21] Historically, more women than men have been diagnosed with HSDD.[18,22,23] Previous studies show variable frequencies of sexual desire disorders, ranging from 31% to 49% in women and 1% to 38% in men.[24] Population-based studies suggest that 30% of women and 15% of men experience low sexual desire.[25] The number of men with HSDD has grown markedly, with some clinicians reporting nearly equal numbers of men and women presenting with low sexual desire.[18,22,23]

Definitions

The concept of sexual desire remains vague and difficult to define, plagued by such imprecise terms as *libido* and *sexual drive*.[23] Sexual desire has been difficult to study due to societal discomfort with sexuality, a preoccupation with sexual intercourse, and the sheer complexity of sexual desire.[22,23] The standard definition of HSDD using the diagnostic criteria in the DSM-IV[2] is "persistently or recurrently deficient (or absent) sexual fantasies and desire for sexual activity. The judgment of deficiency is made by the clinician, taking into account factors that affect sexual functioning, such as age and the context of the person's life." Researchers have criticized this definition because it offers vague and general criteria, avoids a statement of normal and abnormal sexual desire, and relies on subjective clinical judgment.[26] The lack of normative data on basic sexual desire contributes to the subjectivity of HSDD.

The DSM-IV denotation of HSDD appears to recognize how interpersonal dynamics can relate to the disorder and that persons who are not currently in a relationship can experience a low sexual desire. Although systemic factors are highly important in cases of discrepant sexual desire since interpersonal dynamics can influence interest in sex,[3] HSDD can also interfere with a person's sexuality and sexual activities (e.g., masturbation), causing significant personal distress. Finally, this definition does not include the frequency of sexual intercourse as criteria. A person with HSDD can have sex due to self-inflicted pressure or a partner's pressure, which may be overt or covert. Also, one may have infrequent and satisfying sex. In short, frequency of sexual intercourse alone may not represent sexual desire.[17,23,27,28]

Etiologies

Due to the complex and ambiguous nature of sexual desire, a wide variety of etiologic factors have been suggested to explain HSDD. The proposed etiologic factors can be succinctly summarized, recognizing that HSDD may consist of multiple causes and exists as a multidimensional construct.[3,17,22]

Organic or medical problems related to HSDD have been explored, including illness, medications, and hormone levels, especially low levels of androgens.[9,29,30] Environmental or psychosocial problems such as stress, work, and lack of opportunity have been emphasized.[18] Traumatic events including rape and sexual abuse have also been cited,[28,31] and sociocultural factors have also been stressed.[32] Relationship problems include conflicts, intimacy issues, power imbalance, and negative feelings.[18,20,23,33] Behavioral deficiencies may involve communication skills and sexual skills.[19,21,34,35] Developmental and cognitive factors include negative attitudes toward sex and unhealthy or unrealistic sexual expectations.[21,35] Psychological or emotional states such as fear, depression, anxiety, and anger have been shown to interfere with sexual desire in men.[18,22,36]

Several potential etiologic factors for HSDD have been identified, but clinicians and researchers need to organize and characterize these agents properly. Consideration should be given to which causal factors are most common, for which individuals and couples, under what circumstances and conditions. Furthermore, rigorous, multidimensional models must be built to reflect the various potential pathways in the development of HSDD. Complex statistical techniques, such as structural equation modeling, may help organize and test the relationships between these hypothesized variables. A thorough understanding of the features and course of these etiologic agents should improve treatment strategies for this common sexual disorder.

Treatment

Currently, there are no effective pharmacologic agents available to effectively treat HSDD.[37] Medically, testosterone is the only substance that has

been shown to promote sexual desire in men in general,[38] particularly among men with hypogonadism.[39] It is important to assess both the free and total testosterone levels in men with low sexual desire. Testosterone replacement can involve buccal mucosa preparations, intramuscular injections, and scrotal and nonscrotal patches. Dosage and overall treatment should be individualized because androgen replacement can have negative effects on a man's liver function, lipid profile, cardiovascular functioning, prostate, sleep, and emotions.[40]

Although testosterone supplementation can help to promote sexual desire, among men it is primarily mediated by cognitive factors.[41] Many men with a low sexual desire do not have abnormal hormone levels, and men with low testosterone do not necessarily experience HSDD.[42] The small number of double-blind, placebo-controlled studies to date indicate that the correlation between hormones and sexual desire is rather weak.[42] Despite these findings, it is important to rule out low testosterone levels and, more specifically, pituitary problems by gaining a complete hormone profile from male clients. This involves serum assays for morning levels of both free and total testosterone and estradiol, when these hormone levels peak in men.

Perhaps the only other medical intervention for low sexual desire among men would be to consider changing the dosage or regimen of a man's current medications, such as lowering the dosage of an antidepressant or switching the type of cardiovascular medication (e.g., beta-blockers or calcium channel blockers) he takes.[43] Although sexual side effects including low sexual desire are a common adverse effect of selective serotonin reuptake inhibitors (SSRIs), there are no controlled studies that examine SSRI-induced sexual dysfunction and its management.[44] Bupropion (Wellbutrin) is often prescribed for depression or other clinical issues in part because it has a low risk of sexual side effects.[45] Combining medical and psychotherapy becomes critical for the treatment of low sexual desire.[43,46]

In terms of psychotherapy, conceptualizing low sexual desire as a problem in the relationship and including the man's partner (if applicable) has been shown to improve treatment success.[15] Various types of therapy have been used to treat low sexual desire, albeit the existing data often focus on HSDD among women rather than men. These therapeutic approaches include a basic systems approach,[47] Minuchin's structural family therapy,[48] and Haley's strategic therapy.[15] Given the long history of applying behavioral therapies to sexual dysfunctions,[49] it is not surprising that cognitive-behavioral approaches have been developed and applied to the treatment of HSDD. For example, a cognitive-behavioral treatment program described by LoPiccolo[49] includes effectual awareness of one's attitudes toward sex, insight into negative attitudes toward sex, identifying self-statements that interfere with sexual desire, and generating coping statements to address emotional responses to sex (e.g., a cognitive tactic), and a variety of behaviorally oriented homework assignments are practiced (e.g., assertion, communication, and sexual skills training). Scholars other than LoPiccolo have described cognitive-behavioral models of treating HSDD including McCarthy,[50] who has highlighted various strategies and techniques for the treatment of inhibited sexual desire.

As noted earlier, most studies of HSDD and other sexual dysfunctions do not use rigorous research methodology, making it difficult to determine the efficacy of the intervention techniques. In a review of the literature, O'Carroll[29] concluded that no controlled treatment studies of HSDD using a homogenous sample of patients had been conducted. Using more relaxed criteria, Beck[17] described seven studies of HSDD treatment but concluded that a clear statement of treatment efficacy could not be made. Two controlled outcome studies of HSDD treatment have been reported by Hurlbert and colleagues[19,34] using strict criteria of random assignment to a treatment condition and a control group.[14] Although both studies were targeting women with low sexual desire, the results may be extrapolated to men with low sexual desire. This research warrants some degree of detailed attention because of the scientific rigor involved.

Hurlbert and colleagues have presented the most methodologically sound studies of HSDD treatment to date. The treatment package appears to be influenced by a combination of theories and techniques: cognitive, behavioral, and social exchange theory. In the initial study,[19] women with partner-specific HSDD and their partners were randomly assigned to receive a standard treatment package ($n = 28$) or standard treatment with orgasm consistency training ($n = 11$). Standard treatment involved a combination of sex and marital therapy with social exchange theory.[19] The intervention uses LoPiccolo's techniques (described above) and stresses mutual exchange as well as the interdependence of positive reinforcement in a relationship. The treatment increases the ratio of positive to negative reinforcement, enhances communication

and conflict-resolution skills, and decreases dysfunctional beliefs.

Orgasm consistency training is a cognitive-behavioral intervention that postulates that HSDD results from sexual technique deficits.[19] The intervention includes directed masturbation, sensate focus exercises, and coital alignment exercises. The exercises stress that men can reach orgasm only after the women do and that the experience of orgasm be due to partner-related sexual activities. This approach emphasizes the importance of rewards via mutual exchange and interdependence of reinforcement in a relationship.[19] At post-treatment, women in both groups reported significantly positive sexual changes on two of four measures (e.g., increased sexual desire and arousal). Compared with those in the standard treatment group, women receiving combined treatment reported greater sexual arousal and assertiveness at post-treatment, 3-month follow-up, and 6-month follow-up as well as greater sexual satisfaction at 6-month follow-up. The fact that significant findings were found despite low numbers of participants in each group may speak to the utility of this treatment approach. Original participants randomly assigned to each group were lost due to military obligations, but analyses showed no significant difference between the groups after the loss.[19]

In a second treatment study for women with HSDD,[34] three groups received the standard treatment combined with orgasm consistency training: a women-only group ($n = 19$), couples-only group ($n = 19$), and a waiting list control group ($n = 19$). The groups were assessed before treatment, after the intervention, and at a 6-month follow-up. Five participants in the women-only group were lost at follow-up. Both treatment groups improved after treatment, but positive change increased with time and was greater for the couples-only group. Thus, this treatment for HSDD was found to be more effective than no treatment at all.[34]

These results indicate that this treatment can be effectively applied to an individual, suggesting that a couples approach is not essential. Nonetheless, the results seen in the couples-only group was superior to the women-only group, suggesting that HSDD involves a strong interpersonal component. Focusing on female sexuality, cognitive factors, and behavioral factors as they relate to sexual desire are strengths of this approach. A theoretically analogous but technically modified approach for males may aid men with HSDD, but this remains an open question as comparable research has not been conducted in male subjects. Rewards via mutual exchange and interdependence of reinforcement in a relationship may be important in treating men with HSDD, but the forms of reinforcement may be different for men than women (e.g., appreciation from a sex partner rather than orgasm consistency training per se).

Hurlbert's[34] standard cognitive-behavioral treatment with orgasm consistency training has been shown to be successful in treating HSDD. Thus, integrating cognitive-behavioral sex therapy and possible medical interventions may provide the most efficacious treatment of low sexual desire among men.

Male Erectile Disorder

MED involves the persistent or recurrent inability to attain or maintain an adequate erection until the completion of sexual activity.[51] Although the "completion of sexual activity" might be presumed to mean ejaculation and orgasm for the man, satisfactory or completed sex need not involve these responses. To make an accurate diagnosis of MED, the erection problem must cause personal distress, interpersonal difficulty, or both. Like other sexual dysfunctions, the diagnosis of MED is only given when it is not better accounted for by another axis I disorder, medication/drugs, or general and potentially reversible medical condition. When a significant comorbid diagnosis (e.g., major depression, alcoholism) is causing the MED, the major condition needs to be treated rather than the MED. It is considered to be normal for a male to lose his erection during sexual activity on occasion, and many times the erection will return if sexual activity is continued. MED reflects consistent and persistent difficulties with erections.

Health professionals have criticized the term impotence when discussing MED because it can be an imprecise and pejorative term.[52] Sometimes a man will say that he has problems with impotence, but on further inquiry, the clinician may learn that he is talking about PE or sexual desire problems. *Impotence* is a term that has been used to describe a wide variety of sexual problems, and its true meaning can become lost.

MED is often cited as one of the most common sexual dysfunctions among men, second only to PE. According to the National Institutes of Health Consensus Panel on Impotence,[53] 10–20 million men have some type of MED. Many outpatient visits, hospital admissions, and presenting complaints at sex therapy clinics have been related to MED.[54,55] MED becomes more common as men age. The Massachusetts Male Aging Study[56]

showed that 52% of men 40–70 years old had some degree of MED. Although MED is not life threatening, it is associated with negative mood states (e.g., depression, anxiety, shame, embarrassment). MED can negatively affect a man's self-esteem and interpersonal relationships, sexual happiness, and life happiness.[54] To some degree, MED has become a more socially acceptable problem to discuss and treat, but there is still stigma attached to the condition. Despite the availability of medication and use of medical interventions, the number of cases of MED has not seemed to decrease in the last several years.

Etiology

In the 1960s, scholars assumed that MED was mostly due to psychological factors.[52] Although medical and surgical interventions started in the 1970s, they have flourished over the past 15 years. The advent of sildenafil (Viagra) has certainly played a large role in what Rosen[54] and others have called the "medicalization of male sexuality." Medical treatments are now seen as more efficient and effective than psychological treatments, despite the fact that psychological or psychosocial issues are frequently involved.[52] Currently, most experts agree that a multidisciplinary approach is needed to evaluate and treat erectile disorder.[11,12] A case of MED that seems to have a primarily organic etiology may still have psychosocial factors involved in the evaluation and treatment.[52] Similarly, a case of MED that may have primarily psychosocial causal factors might still benefit from medical evaluation and treatment.

There is a long list of physiologic factors that can influence MED, but there are few data to support the specific prevalence of any particular causal factor. The most common physiologic factors include medications, health status, and advancing age.[37] Other physiologic etiologic factors include diabetes mellitus, heart disease, hypertension, arteriosclerosis, traumatic injury, surgical complications, cigarette smoking, and drug/alcohol use.[57] A detailed account of erectile dysfunction in the setting of diabetes mellitus is highlighted in Chapter 9, Endocrinology. MED can be also associated with some types of cancer, such as testicular or prostate cancer.[58–61] In one meta-analysis of available studies on testicular cancer,[59] the authors concluded that erectile dysfunction and other sexual problems occur in conjunction with, but are not always related to, disease or treatment processes; instead, erectile dysfunction may be associated with psychological adjustment to the testicular cancer. Statistics concerning the incidence of MED in men after radical prostatectomy vary widely and have been estimated to range from 16% to 82%.[60] The likelihood of MED depends on several factors, such as the man's age, the severity of the cancer, comorbid issues, and the degree to which the surgery has affected the corpus cavernosa.[60]

Having one or multiple risk factors for MED does not necessarily lead to MED. For example, having diabetes does not guarantee that men will have erectile dysfunction. In contrast to prior studies, one comprehensive review of basic research and controlled studies suggests that only 26–35% of men with diabetes will have erectile dysfunction.[62] This is only a slight increase in risk for erectile disorder compared with men without diabetes. Spontaneous remission can occur for some men with erectile disorder.[62] In short, it is important to be aware of medical risk factors for MED and screen men for them. Medications do not necessarily lead to sexual dysfunction like erectile problems, and some medications may be less likely to cause sexual side effects (e.g., Wellbutrin, trazodone, Remeron, angiotensin-converting enzyme inhibitors).

Psychosocial etiologic factors for MED include sociocultural influences, psychosexual trauma, sexual skills or techniques (e.g., changing positions too often; inadequate foreplay), emotional factors, relationship problems, psychological conflicts, performance anxiety, irrational beliefs, intimacy dysfunction (e.g., family of origin), and sexual attitudes and knowledge. Assessment is used for diagnosis, case formulation, and treatment. Because of the long history and high degree of interest in MED, several assessment techniques have been developed.

Ackerman and Carey[52] have provided a thorough review of various assessment strategies for MED. They note that health professionals often rely on client self-report and ask a few clinical questions, but various queries can be organized into a semi-structured clinical interview. They concluded from existing research that semi-structured clinical interviews can be constructed to provide a reliable and valid assessment of erectile function, an assessment that correlates highly with more expensive and intensive biomedical evaluations.[52] Physicians may not have the time, interest, or skill to conduct such clinical interviews; thus, a qualified sex therapist can help with this assessment. In terms of self-administered questionnaires, global measures of personality or sexuality (e.g., Minnesota Multiphasic Personality Inventory, Derogatis Sexual

Functioning Inventory) may be useful for case formulation and planning, but questionnaires with items specific to MED (e.g., Sexual Self-efficacy Scale-Erectile Functioning, Leiden Impotence Questionnaire, Miami Sexual Dysfunction Protocol) are superior for diagnosing the degree and patterns of erectile dysfunction.[52] These types of specific questionnaires are not commonly used except in research and in some sexual therapy clinics. The assessment and treatment of MED might be enhanced if measures specific to erectile functioning are routinely included in practice.

Physiologic assessment approaches to erectile dysfunction can be useful because men can underestimate their erections and their sexual partners can provide contradicting information. Ackerman and Carey[52] also reviewed various physiologic measures for MED, including nocturnal penile tumescence, RigiScan diagnostic monitor, and visual sexual stimulation. These procedures can be expensive for patients, are not readily available for use, and may not be adequately reliable. The authors note, "...[E]ven a perfect measure of tumescence and rigidity should not be regarded as anything more than a single, albeit significant, component in a comprehensive biopsychosocial formulation."[52]

Treatment

There are a wide variety of medical and surgical treatment choices for MED.[37] Semi-rigid surgical prostheses, inflatable prostheses, venous ligation surgery, intracavernosal injections (e.g., papaverine, alprostadil), topical creams, and oral medications have all been used with success.[54] Vascular surgery has been shown to help restore erectile functioning in some men whose MED is related to vascular problems.[51] Penile implant surgery is not reversible, and consequently, it is reserved for cases of MED that have not responded to less invasive forms of therapy.[54] Although there are data to show that implant surgery has been effective, past studies have methodologic flaws that masked some of the problems and concerns of implant surgery (e.g., mechanical problems, suboptimal quality of erections).[51] Advanced technology has improved penile implants, but less invasive and less expensive treatments for MED have decreased the popularity of this treatment option.[51,54]

Injection therapy has been shown to be effective in treating MED in 79–91% of cases, but approximately 50% of men discontinue the injections because of pain or minor bruising.[57] Prolonged erections, fibrotic nodules, liver function problems, vasovagal incidents, and infection can be other adverse effects of injection therapy.[57] The vacuum erection or constriction devices are nonsurgical instruments (e.g., a plastic cylinder) that draw blood into the penis, causing an erection that is maintained with a rubber constriction ring placed at the base of the penis. Despite the strong efficacy of these devices, the dropout rate of men using them can be substantial due to inconvenience and discomfort.[51,54]

Sildenafil (Viagra) is a selective type-5 phosphodiesterase inhibitor that has been shown to be effective in treating MED in randomized double-blind, placebo-controlled trials.[63] Men with cardiac problems need to be evaluated before taking Viagra—specifically, men taking nitrates should not take Viagra.[64] Vardenafil and tadalafil are other similar medications that have been shown to help improve men with MED,[64,65] whereas other oral agents (e.g., yohimbine, apomorphine) have not been as efficacious in treating MED.[57,64] Oral medication can be highly successful in resolving erection problems among men after radical prostatectomy, and any of the main three oral medications (i.e., sildenafil, vardenafil, and tadalafil) are considered the first line of therapy in these cases.[60,61]

Psychological interventions in sex therapy have been shown to be effective in treating MED. These therapy techniques include sex education, sensate focus exercises, systematic desensitization, and sexual communication skills in various therapeutic combinations.[37] In six comparison controlled studies, systematic desensitization was shown to be superior to psychoanalytic therapy or an attention placebo.[13] These therapeutic techniques help to increase comfort with sexuality and to reduce anxiety about sex while teaching sexual skills to maximize erectile functioning and sexual enjoyment (e.g., learning how to touch and provide stimulation, learning new ways of being sexual and intimate). Changing unhealthy thinking patterns (e.g., cognitive distortions) and changing interpersonal or systemic dynamics can be an important part of therapy as well.

Male Orgasmic Disorder

MOD is a challenging sexual dysfunction to explore because there are empiric, conceptual, terminologic, and scientific shortcomings in the literature. The DSM-IV[2] describes MOD as a "persistent or recurrent delay in, or absence of, orgasm following...normal sexual excitement..." Yet, this description does not appear to

capture the full range of possible presenting complaints. Case studies and this author's own clinical experience suggest that there is considerable diversity in clinical presentations of MOD. For example, some men have reported ejaculating without an adequate feeling of orgasm. In other cases, men have difficulty ejaculating during vaginal sex or masturbation.

Perhaps the most common clinical scenario involves a man who can ejaculate and experience orgasm via masturbation without problems, but he has difficulty ejaculating and experiencing orgasm via vaginal intercourse. These are very different clinical scenarios that fall under the essentially the same diagnostic category of MOD. It is not clear whether these cases reflect problems with ejaculation, orgasm, or both. The answer likely depends on the specifics of the presenting complaint, but the diversity of clinical presentations clearly challenges our current understanding of ejaculation and orgasm among men. Ejaculation and orgasm are separate events that usually occur closely together.[66] Moreover, orgasm is both a subjective and a physiologic occurrence.

Laypersons and professionals alike tend to simplify men's sexuality and assume that if a man ejaculates, his orgasm is inevitable. Similarly, we might make the questionable assumption that all orgasms for men are easy to obtain, adequate, and subjectively feel the same. There is more research on orgasms among women and, unlike for women, there is no typology of orgasms for men.[62] Clearly, more research is needed on orgasm and orgasmic disorders among men. A potential question for future research could explore whether orgasms with retrograde ejaculation as subjectively pleasurable as orgasms with anterograde ejaculation.

The language used to describe these clinical phenomena appears to be imprecise and pejorative, further complicating our knowledge of MOD, as it is perhaps most commonly referred to as *retarded ejaculation*. Several other terms have been used to describe this condition, including *inhibited ejaculation, delayed ejaculation, ejaculatory incompetence, ejaculatory impotence, ejaculatio retardate, impotentia ejaculandi, absent ejaculation, "blue balls," impotence, ejaculatory anhedonia,* and *incomplete/partial retarded ejaculation.*[67–69] MOD should not be confused with retrograde ejaculation, in which a man's ejaculate is deposited into the bladder rather than exiting via the urethral meatus. A more complete review of retrograde ejaculation is available in Chapter 16, Urology. The professional literature is littered with case studies and review articles on MOD, yet the majority typically do not add any conceptual or empirical depth to our current understanding of MOD.

Due to the lack of adequate data in the clinical and in general populations, accurate prevalence rates for MOD are difficult to accurately determine. Early studies suggested prevalence rates of 3.37–3.79% among men presenting with sexual dysfunction.[6,70] More recently, Rowland and colleagues[71] estimated the prevalence rate to range from 2% to 5%, depending how MOD is classified, and the overall prevalence of MOD is probably greater than reported.[72,73] Some men may not be bothered by a delayed ejaculation or varying subjective experience of orgasm, if any. Other men may be too embarrassed by these types of sexual difficulties and may avoid seeking treatment. Men with sexual partners may actually like having an absent or delayed ejaculation; thus, interpersonal conflict related to this sexual dysfunction does not occur. Nonetheless, some heterosexual men do seek treatment because of personal distress or, more commonly, because MOD interferes with his ability to conceive.

Etiology

The somewhat esoteric nature of this topic makes it difficult to conduct accurate research because few men actually present with MOD, and large-scale studies of even a descriptive nature are lacking. Consequently, conclusions regarding etiology and treatment are challenging to extrapolate from existing studies. Because of the complexity of this sexual problem, it is critical for health professionals to identify and employ the basic specifiers in each case of MOD: lifelong versus acquired, situational versus generalized, and that due to psychological factors versus that due to combined factors. A man who has never ejaculated via masturbation or other forms of sexual activity is different from a man who has ejaculated via masturbation but not via vaginal intercourse. A careful assessment can give clues to etiologic factors and thus can inform the overall treatment plan.

Pharmacologically induced MOD has become more commonplace.[37] Delayed ejaculation is a common adverse effect of SSRIs, but several medications have been implicated including other types of antidepressants and antipsychotic medications.[37,74,75] Some medical conditions have been linked to MOD, such as diabetes mellitus, spinal cord injury, and genital-urinary problems.

Perelman[72] has suggested that MOD results from an idiosyncratic masturbation style. A man's unique masturbation habits could make it difficult for him or others to reproduce the style and degree of stimulation in any other way. Cultural or religious scripts toward masturbation and sexuality in general could lead to idiosyncratic masturbation habits (e.g., masturbating in a way that makes him feel as if he is not masturbating and thus not violating his values) or personality characteristics that make it difficult for him to feel relaxed and comfortable with his sexual behavior. These possible etiologic factors point toward the importance of conducting a thorough assessment of a man's masturbation habits, sexual fantasies, and personality characteristics. This kind of assessment is sometimes completed over time because a man might reveal more of his sexual history and habits when he becomes more comfortable with a health professional. Such an evaluation is best conducted by a qualified health professional who can take the time for a thorough assessment.

Treatment

Campden-Main and Sara[76] have written, "The only cases of retarded ejaculation that are easy to treat are those secondary to medication that can be promptly discontinued." Although this is a vast overgeneralization, every man's medication regimen should be closely examined at the time of the initial evaluation. If a change in his medications cannot be made, perhaps the dosage can be altered or an adjunct prescription (e.g., bupropion in place of an SSRI) can ameliorate the MOD[77]; however, this strategy will not work for all clients.[78] These treatment approaches are based on modest research, anecdotal clinical evidence, and case studies, rather than empirically based research.

Psychotherapy can offer several options for therapy of MOD, but empirically validated treatment options are, again, lacking. Brief forms of therapy using standard sex therapy techniques appear to be more useful than psychoanalytic, long-term therapy; clients with more severe mental health issues require more therapy.[67,68,73] Cognitive-behavioral tasks with a well-trained sex therapist are important for treatment success. General treatment goals involve desensitizing the man to sexuality, de-emphasizing the symptom, focusing on his lack of psychological arousal, increasing his flexibility or variety in sex, and integrating this into sexual intercourse with his partner. As a part of therapy, men likely need to decrease various forms of shame or guilt about sexual topics and address any anger, anxiety, fear, or other emotional conflicts. Specific tasks vary but might include temporarily abstaining from masturbation and other forms of sexual activity and teaching the man various relaxation techniques. In terms of increasing his comfort with sexuality and exploring ways he can increase his mental or psychological sexual arousal, men with MOD need to ask themselves: What can make sex more fun, safe, or pleasurable? For example, he can explore various activities that might feel sensual or that make him feel sexy, without engaging in sexual behavior. Masturbating alone in a new way (e.g., using the opposite hand, not using any hands) and later involving his partner can be other therapeutic options.[72] Some men may need to learn how they can feel a greater sense of control and other men will need to decrease rigidity or obsessive-compulsive tendencies. As always, addressing relationship conflicts and improving sexual and nonsexual communication will be an important part of successful therapy.

Premature Ejaculation

PE has been a topic concern for men and, thus, a common theme in scholarly papers for many years.[79] Generally speaking, PE occurs when a man ejaculates sooner than he would like to, without any definitive time factor built into the definition. PE has also been referred to as *rapid ejaculation,*[80] among other terms. Typically, men would like to forestall ejaculation or "last longer" to prolong their physical and subjective enjoyment of sexual activity, to prolong their sex partner's enjoyment, or both. Although there are significant numbers of men who present with erectile dysfunction and increasing numbers who present with low sexual desire, several scholars suggest that PE is the most common sexual dysfunction among men.

Prevalence estimates vary considerably[81] but Laumann et al.'s[82] methodologically strong survey in the United States suggests a prevalence rate of 29%. It is important to note that most conceptualizations of PE, like most of the sexual dysfunctions, are heterosexist in that the referent is almost always penile-vaginal intercourse between a man and a woman.[80] In addition, when discussing PE, there is generally a questionable assumption that men should control the pacing of sexual activity and timing of ejaculation.

Assessing PE can be challenging because the diagnostic criteria are vague and subjective, and

men may not have accurate perceptions of how long they engage in sexual activity before ejaculating. Grenier and Byers[83] found that several commonly used criteria for PE are only modestly correlated: ejaculatory latency, perceived ejaculatory control, concern over ejaculating more rapidly than desired, satisfaction with ejaculatory control, and involuntary ejaculation before intercourse. Similar findings were reported in a later study by the same authors.[84] These studies show that a man's conception and experience of PE can vary considerably. Although time from intromission to ejaculation is not necessarily a quality indicator of PE, it remains a common method of assessment. Schover and Jensen[85] have reported that healthy young males have a median latency of 7–10 minutes.

Etiology

Several etiologic factors have been theoretically linked to PE, yet little empiric research supports any of these ideas.[80] For example, early sexual experiences in which men masturbate quickly because of shame, guilt, or lack of privacy have often been cited as causing a predisposition to PE. Anxiety has been etiologically linked to PE by either activating the sympathetic nervous system (which causes the emission phase of ejaculation) or by interfering with a man's awareness of his sexual responses and ability to regulate his sexual behavior.[80] In the latter situation, the anxiety causes him to think about his sexual performance and he ejaculates before realization of the event.

Other factors that could contribute to PE include being highly aroused sexually, failing to use sexual techniques that forestall ejaculation, and having a penis that is more sensitive to stimulation (e.g., a man with a more sensitive penis reaches the point of ejaculatory inevitability more quickly). Grenier and Byers[80] argue that there is little empiric research to show that men with PE are different from a control group on these dimensions. As men age, symptoms and concerns about PE diminish.[86] It is unclear whether this suggests a change in biology over time (pointing toward a biologic predisposition to ejaculate quickly) or a change in sexual experience (e.g., learned behavior in a man's sexual development over time).

Treatment

At one time, the psychological and behavioral approaches to treating PE were popular and apparently successful, with post-treatment success rates of 60–95%.[6] The utility of pharmacotherapy was de-emphasized and behavioral methods were viewed as superior.[87] These therapeutic gains were not necessarily maintained, however, and the success rates for psychological and behavioral treatment approaches to PE have fallen over time.[88] Despite this shift, sex therapy techniques like the "squeeze technique," used in conjunction with other therapeutic work, remain popular. The squeeze technique involves stimulating the penis until the man feels he might ejaculate, stopping before the point of ejaculatory inevitability, and squeezing the penis firmly at the base or below the glans for several seconds.[37] This process is repeated until the man allows himself to ejaculate. This technique is typically practiced by the man alone via masturbation for several trials before he repeats the exercise with his sex partner. In the only controlled study using this procedure, Heiman and LoPiccolo[89] reported longer durations of foreplay and intercourse. Other studies have reported similar results, but these studies lack controls and long-term follow-up data.[13]

Several studies involving the pharmacologic treatment of PE have shown that medication can be useful in ameliorating the symptom.[90] Waldinger and colleagues[91] conducted a review and meta-analysis of drug treatment studies published between 1943 and 2003. Of 79 publications, 35 studies examined the effects of serotonergic antidepressants on PE; eight of these studies were prospective, double-blind investigations that used timed assessments of ejaculation at baseline and during the drug trial.[91] Despite these stringent criteria, there are other studies that use a placebo-controlled design.[92] In general, this body of research suggests that clomipramine, paroxetine, sertraline, and fluoxetine are effective in treating PE.[91] Waldinger and colleagues[91] found the efficacy of paroxetine to be greater than the other agents, which had comparable levels of efficacy with one another. Once a client ceases to take the medication, however, the symptoms of PE typically return. The long-term effects of using pharmacotherapy to treat PE are unclear, and the viability of using medication on an as-needed basis is also unclear. More research is needed to address these topics. Topical anesthetics and herbal medications have also been used to treat PE, but the efficacy of these approaches are unclear because of the few and methodologically inconsistent studies in this area.[93]

Dyspareunia

Dyspareunia, a general diagnosis describing pain during sexual activity, has rarely been diagnosed among men and is not typically discussed in routine reviews of sexual dysfunction.[37] According to a large survey of the general population, 3% of men reported "pain during sexual activity" as a problem in their sexual activity in the past 12 months.[82] When a man presents with pain during sexual activity, the etiology may be related to anatomic features of his genitals, including penile angle, or it may be psychological in origin.[94–96]

Rosser and colleagues[97,98] conducted research that examines *anodyspareunia,* or pain during receptive anal sex among gay/bisexual men. In one study, 61% of gay/bisexual men (n = 197) reported painful receptive anal sex as the most frequent lifetime sexual difficulty,[97] but in another study only 24% of gay/bisexual men (n = 277) reported always experiencing some degree of pain during anal sex.[98] Not all gay/bisexual men practice anal intercourse, but Rosser and colleagues[98] suggest, based in part on subjective reports, that adequate lubrication, bodily relaxation, and preparatory digital anal massaging were important factors in avoiding anodyspareunia. Depth and rate of penile thrusting are other critical factors in predicting (and thus avoiding) pain, which can be rectified via adequate communication between sexual partners.[98] Damon and Rosser[99] found that psychological factors can be primary contributors to the experience of pain during anal intercourse, dispelling the idea that pain is inevitable during anal sex and highlighting the importance of assessing and treating psychological factors in anodyspareunia.

Compulsive Sexual Behavior and Paraphilias

Compulsive sexual behavior, also known as *sexual addiction,* is both a complex and controversial topic that is becoming a common problem among men, and it is important for physicians to be aware of the syndrome. The two types of compulsive sexual behavior include nonparaphilic and paraphilic.[100] Nonparaphilic compulsive sexual behavior involves typical sexual behavior that feels out of control, is causing personal or interpersonal distress, or is otherwise causing problems in some area of a man's life (e.g., work-related problems, social difficulties, financial problems). This sexual behavior often stems from something other than sexual desire, such as anxiety.[100] Some examples of these types of behaviors include excessive masturbation, multiple love affairs or sexual partners, and use of sexually explicit material (e.g., frequent use of pornography on the Internet or in magazines).

A paraphilia is an atypical sexual behavior, and such behaviors can be compulsive in nature for some men. Examples of paraphilic compulsive sexual behavior include using women's undergarments or diapers for sexual purposes and giving or receiving pain or humiliation for purposes of sexual excitement. There are a variety of forms of nonparaphilic and paraphilic sexual behavior, but the degree to which the behavior is problematic requires good clinical judgment by a trained healthcare provider. Sexual behavior that appears to be compulsive should not be confused with normal developmental processes, value differences within a couple, or situational variables.[100] Compulsive sexual behavior also can be overpathologized by professionals with restrictive attitudes about sexuality.[100]

The sexual behaviors in question can start slowly and escalate until the sexual behavior causes problems in some area of a man's life.[101] For example, the man may be so preoccupied by the sexual behavior that he is not getting work or completing domestic tasks in a timely manner. Clients often feel ashamed and have difficulty discussing the problematic sexual behavior and resulting negative effects on their lives. Compulsive sexual behavior can be an ongoing recurrent issue or an episodic problem.[100,101] The prevalence of compulsive sexual behavior has been estimated to be 3–6% of the US population, but these statistics may not be completely reliable.[101]

Empiric research does not support any particular set of etiologic factors for compulsive sexual behavior, but the etiology is likely to be multifaceted. Despite the assumption that men with compulsive sexual behavior have a history of trauma, this may not be a casual factor in all cases.[101] Men with compulsive sexual behavior may have substance abuse problems, mood disorders (e.g., depression or anxiety), obsessive-compulsive disorder–type characteristics, or personality-disorder characteristics such as narcissistic, antisocial, or dependent traits.[102,103] Treatment for this syndrome centers upon the 12-step, self-help approach, more formalized treatment, or both.[101] Group therapy is a common mode of treatment regardless of the setting, although individual therapy and couples therapy are important parts of the treatment process.[100,102] Physicians should know that

medication can be a crucial piece of treatment for compulsive sexual behavior, as it may also be used to treat an existing axis I disorder and used to minimize urges for compulsive sexual behavior. Fluoxetine (Prozac), sertraline (Zoloft), and paroxetine (Paxil) are some of the more commonly prescribed medications to treat this condition.[100,102] There are several studies that report these various treatments to be effective, and a comprehensive or integrated approach may be particularly efficacious.[100–102] Unfortunately, empirically based evidence of treatments for compulsive sexual behavior is lacking.[101]

Conclusion

What conclusions can be drawn regarding the evidence for empirically validated treatments for men's sexual health concerns? The results are mixed and arguably modest. Because the treatment for sexual dysfunction needs to involve a combination of factors, it is challenging to quantify the overall quality of the current treatment approaches. Using the strength of recommendation taxonomy classification described by Ebell and colleagues,[104] the treatment for most sexual problems among men reach a B-level strength of recommendation. The need for a multidisciplinary approach to treatment is a C-level recommendation. Using pharmacotherapy to treat MED may be a specific A-level recommendation, but long-term follow-up studies are needed and men will likely need more than medication to achieve long-term amelioration of their symptoms. The treatments for HSDD, PE, and compulsive sexual behavior appear to involve B-level treatment recommendations. In these cases, physicians can consider the need for medication or the need for a change in a patient's medication regimen. Working with a sex therapist who can use carefully planned sex therapy techniques, including cognitive-behavioral methods, will be paramount. In contrast, the treatment for MOD and dyspareunia continue to involve C-level strength of recommendations. These cases tend to be individualized and need careful assessment by a medical professional, a sex therapist, and possibly other health professionals (e.g., a physical therapist). In summary, health professionals have a decent guidebook with which to work when it comes to assessing and treating sexual health concerns among men. Nonetheless, there is a clear need for strong research programs that can empirically test our current treatment paradigms.

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