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 SEXUALITY, REPRODUCTION & MENOPAUSE

Assessment and treatment of hypoactive sexual desire disorder

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A clinician's guide to female sexual disorders, with an emphasis on hypoactive sexual desire disorder

Female sexual disorders

Many women experience some form of sexual dysfunction—that is, a sexual problem that they find distressing. Yet, both patients and health providers may be reluctant to initiate a sexual health dialogue. Successful identification and resolution of female sexual disorders (FSDs) is not possible, however, if clinicians do not first ask about a woman's sexual health.

DSM-IV-TR definitions of FSDs

The *Diagnostic and Statistical Manual of Mental Disorders, 4th edition, text revision* (DSM-IV-TR) recognizes 6 FSDs: hypoactive sexual desire disorder (HSDD), sexual aversion disorder, sexual arousal disorder, orgasmic disorder, dyspareunia, and vaginismus (TABLE).¹

Overlap of these conditions is common, and HSDD is by far the most prevalent.² Although this list provides a useful starting point for identifying sexual disorders, clinicians should avoid overemphasizing physiologic mechanisms when making a diagnosis. The key criterion for an FSD diagnosis is distress. A woman who has low sexual desire but is not bothered by it should not necessarily be diagnosed with HSDD.

Prevalence of sexual problems associated with distress (PRESIDE)

In a survey of 1749 women aged 18 to 59 years, 43% reported having sexual problems within the past year.³ The 2008 study Prevalence of Sexual Problems Associated with Distress (PRESIDE) furthered this research, categorizing FSD prevalence by age.⁴ The results of this survey of more than 31,000 women showed that midlife women have the highest rates of HSDD (12.3%) compared with younger women (9%) and women aged 65 years and older (7.4%). The authors speculate that a woman's expectations of continued spontaneous sexual desire may contribute to the higher level of self-reported dysfunction among midlife women compared with older women.

Because many of the 6 FSDs overlap, it is important to determine the primary disorder, and then how comorbid FSDs develop over time. A 1- to 2-minute assessment is generally sufficient to make a differential diagnosis. Asking

the patient what she considers to be her primary sexual concern is a good place to start. For example, a patient may disclose having persistent, distressing, low sexual desire (HSDD). Careful follow-up questioning may reveal that pain during intercourse has caused or contributed to the decline in desire. Dyspareunia, therefore, and not HSDD, is likely the primary FSD in such a case.

What is hypoactive sexual desire disorder?

HSDD is defined as the persistent or recurrent deficiency or absence of sexual thoughts, fantasies, and/or desire for, or receptivity to, sexual activity, which causes marked personal distress or interpersonal difficulties.² But what should a clinician do when the patient says, “I have no interest in sex”? Defining desire is a good place to start.

Although desire appears to be a simple, universally understood word, it is considerably complex. In order to understand HSDD and to determine the appropriate treatment approach, it is helpful to divide desire into 3 components: drive, cognition, and motivation.⁵

Drive is the biological component of desire based on neuroendocrine mechanisms; it is evidenced by spontaneous sexual interest, or what patients may know as feeling “horny.” Drive is individual, and it declines with age regardless of gender or baseline.

Cognition encompasses the expectations, beliefs, and values that influence desire. For example, a happily married postmenopausal woman who considers sex to be healthy and appropriate, and who is no longer concerned about pregnancy or menstrual bleeding, will likely have a higher level of desire than a grandmother and widow who believes sex is inappropriate for grandmothers and disrespectful to her deceased husband.

Motivation reflects all of the psychological and interpersonal factors that merge to create a willingness to engage in sex. Often the most important component of desire, motivation can be affected by myriad factors, including stress from work, health concerns, children, and/or the quality of the relationship with the sexual partner.

Distinguishing among the components of desire is essential when assessing sexual problems, because treatment may differ greatly depending on which component(s) of desire have declined. For example, anger with the sexual partner can easily hamper a woman’s strong biological sexual drive. Alternatively, a woman with low biological drive and high motivation for partner intimacy can have a satisfying sex life despite few physical cues or sexual interest.

Causes of diminished desire in women

Loss of estrogen

Estrogen deficiency, whether natural or resulting from surgical menopause, has long been associated with altered sexual function in women due to the following urogenital anatomical changes that it may induce⁶:

TABLE

A brief guide to female sexual disorders

FSD	Definition*
HSDD	Deficiency or absence of sexual thoughts, fantasies, and/or desire for, or receptivity to, sexual activity
Sexual aversion disorder	Extreme aversion to, and avoidance of, all (or almost all) genital sexual contact with a partner
Sexual arousal disorder	Inability to attain, or to maintain until completion of the sexual activity, adequate lubrication-swelling response of sexual excitement
Orgasmic disorder	Delay in, or absence of, orgasm following a normal sexual excitement phase
Dyspareunia	Any urogenital pain that interferes with sexual and nonsexual activities
Vaginismus	Difficulty allowing vaginal entry of a penis, finger, or any object despite the express wish to do so; may include problems with muscle tension, anticipatory fear of pain, or avoidance behavior

FSD, female sexual disorder; HSDD, hypoactive sexual desire disorder.

*Diagnosis requires that the disorder be persistent or recurrent and cause marked personal distress.

Adapted from: American Psychiatric Association. Diagnostic and Statistical Manual of Mental Disorders, 4th ed, text rev. Washington DC: American Psychiatric Association; 2000.

- Shortening and loss of vaginal elasticity
- Diminished vaginal lubrication/secretions
- Increased pH levels
- Thinning of vaginal epithelial layers.

In addition, other physiologic changes related to estrogen deficiency (eg, reduced peripheral blood flow, reduced nerve transmission, sleep disruption, and mood alterations) may negatively affect sexual function.⁷

Genital atrophy

All women with prolonged estrogen deficiency will experience some degree of genital atrophy. Epithelial changes occur in weeks to months, whereas vascular, muscular, and connective tissue changes become evident over the course of years. These changes can lead to vaginal dryness, decreased lubrication, loss of elasticity, dyspareunia, and distention of the urinary meatus, as well as urinary frequency, urgency, nocturia, and dysuria. The possibility of genital atrophy and dyspareunia should be investigated thoroughly in postmenopausal women who disclose low sexual desire.

Progestogens

Evidence demonstrates that progestogens may also contribute to sexual dysfunction by inhibiting androgen binding,

inhibiting 5 α -reduction of testosterone to dihydrotestosterone, the mood-dampening effects of progestins, and causing downregulation of the estrogen receptor.⁸

Barriers to communication regarding female sexual problems

Patient barriers

Approximately 10 years ago, Marwick and colleagues found that, although 85% of adults wanted to discuss sexual functioning with their physician, many did not: 76% believed no treatment was available, 71% felt their physician did not have time, and 68% thought their physician would be embarrassed.⁹ Patients continue to be reluctant to initiate sexual health conversations with their healthcare provider. In a more recent study of mature, sexually active women aged 40 to 80 years, 43.9% had not sought clinical help for a sexual problem. Only 16% had spoken to a physician, and nearly 80% sought no medical help. Likewise, of the women with sexual problems and distress identified in the PRESIDE study, 34% had discussed the problem with a healthcare provider, and 41.5% had discussed it with a non-healthcare provider. Some sought help from anonymous sources such as the Internet, while 14% sought no help at all.

According to the PRESIDE study, women are less likely to bring up sexual concerns with medical staff if they are single or have poor self-assessed health or moderate embarrassment. It is interesting to note that few women (12%) cited self-embarrassment as a sex discussion barrier, whereas 68% cited physician embarrassment.

Physician barriers

One of the most significant practice barriers to physician initiation of sexual health discussions with patients is lack of knowledge/training in sexual medicine.⁹ A study of 53 University of Virginia medical students revealed that less than 10% felt confident in making a diagnosis of HSDD. However, nearly all of the respondents considered HSDD an important diagnosis to make.¹⁰ Other practice barriers include:

- Lack of training in communication skills/counseling
- Not considering healthy sexual activity a high priority health topic
- Unawareness of associated comorbid conditions
- Time constraints/inadequate reimbursement

Personal barriers to physician initiation of sexual health discussions with patients may include lack of privacy, cultural/language barriers, male gender, or personal discomfort discussing sex.⁹

Effective screening techniques for female sexual dysfunction

The diagnosis of HSDD is largely made based on the medical interview. Estrogen and testosterone levels alone are insufficient to make a definitive diagnosis of HSDD.

Sexual history taking

Several studies suggest that older women rarely initiate sexual health conversations with a healthcare provider, and that a large number would prefer their healthcare provider to do so. It is clear that screening sexual histories greatly improve the detection and successful resolution of sexual problems. In one study, physician questioning increased patient reporting of sexual dysfunction from 3% to 19%.¹¹

Open-ended, ubiquity-style questioning is recommended.¹²

A physician may begin the screening with a question that relates to other medical issues a patient may have, such as:

- “Many women with diabetes have sexual problems. How about you?”

Continuing the inquiry with specific questions may help reveal more information about the nature of the problem:

- “Are you having problems with desire or interest in sex?”
- “Are you having any problems with lubrication or dryness?”
- “Are you having any problems with orgasm, or ‘coming’?”

Follow up a positive response with an open-ended question:

- “Tell me about it.”

Use simple, direct language combined with empathetic and normalizing statements. Declaring and demonstrating a lack of embarrassment and the willingness to listen may also improve disclosure. In addition, be aware of the patient’s cultural background, ensure confidentiality, and avoid making assumptions or being judgmental.¹²

The narrative thread

Open-ended questions that focus on the topic but do not prescribe the response require narrative elaboration; they can open the door to information, understanding, and feelings. Open-ended dialogue can also be efficient. In one study investigating migraine, the condition and its symptoms were disclosed within 90 seconds of asking an appropriate open-ended question.¹³ In eliciting the patient’s narrative of sexual concerns, listen for critical elements in the patient’s speech and ask a directed, open-ended question to follow the narrative thread.

For example, if the patient says, “I just don’t want to have sex with Peter the way I used to. It’s got me so down, and he’s so...(pause). It’s just no good now,” continue the narrative thread with a directive, open-ended question: “Tell me about [it],” replacing “it” with the most important word from the patient’s last statement. Following are examples of what “it” could be:

- “Tell me about not wanting to have sex.” This might reveal information about low desire or coercion.
- “Tell me about what you mean by ‘the way [you] used to’?” Is this about frequency, technique, enthusiasm, or desire?
- “Tell me about feeling down.” Does the patient have low desire because she is depressed? Or is she distressed about her low desire?
- “Tell me about it being ‘no good now.’” Is there a change in arousal or orgasm? Is it another phase of the sexual

response cycle? Is there a change in the relationship? Is Peter no good now?

- “Tell me about Peter. He’s so...?” Is Peter understanding? Angry? Different? This question can determine whether the sexual distress is situational or generalized. Is the partner the problem?

When eliciting the narrative, continuers—“go on” and “tell me more”—and emotionally supportive statements—“that sounds frustrating”—can facilitate the dialogue and reveal more details about the nature of the sexual problem. Lastly, try asking for clarification to confirm understanding: “So are you saying that you think your relationship with Peter might be the problem?”

Diagnosis and treatment options

Psychotherapy, sex therapy, and pharmacologic therapy—or a combination thereof—may be effective in treating HSDD and other FSDs. Currently, no pharmacologic therapies are approved by the FDA for the treatment of HSDD. Some treatments have been used off-label, however, in postmenopausal women.

Psychotherapy

Sex therapy is a specialized type of psychotherapy that can be prescribed when a patient’s chief concern is sexual. It often does not focus solely on sexual function but is based on the premise that sexuality is best understood within a biopsychosocial model. Sex therapy tends to be short term (5-20 sessions) and solution focused. Successful treatment is not limited to adequate genital functioning but also encompasses the patient’s psychological satisfaction.

Estrogen therapy

Vaginal lubrication and atrophic conditions consistently improve with estrogen, as does vaginal blood flow, leading to increased arousal. With oral estrogen therapy, the gastrointestinal system and liver are exposed to high concentrations of estrogen before it enters the bloodstream. This alters hepatic metabolism and can result in increased triglycerides, C-reactive protein, sex hormone-binding globulin, and

clotting factors. In contrast, nonoral estrogen therapy (ie, patch, gel, or vaginal ring)—bioidentical estradiol—is first absorbed into the peripheral circulation, thereby reducing the overall impact on liver metabolism.

The Women’s Health Initiative study showed that estrogen plus progestin use was associated with more risk than benefit in healthy postmenopausal women.¹⁴ However, when the results are stratified by age, it is evident that women who started estrogen therapy before the age of 60 saw reductions in coronary heart disease (CHD) (37%), stroke (11%), and total mortality (29%). A meta-analysis of 30 trials also demonstrated the protective benefits of estrogen therapy when started prior to age 60.¹⁵ Such women saw a 32% decrease in CHD and a 40% reduction in all-cause mortality.

Androgen therapy

Testosterone levels do not drop as precipitously as estrogen levels do during menopause; however, they do gradually decline with age. The North American Menopause Society guidelines point to the increased sexual desire evidenced by studies examining the benefit of adding testosterone to estrogen therapy in select patients with HSDD.¹⁶ However, because long-term safety data are lacking, the Endocrine Society recommends against generalized use of androgen therapy.¹⁷

Other potential treatments on the horizon

The Eros clitoral therapy device is approved for treatment of female sexual arousal disorder. Other treatments that have shown potential for FSDs: dehydroepiandrosterone (DHEA, an endogenous hormone) and PD5E inhibitors (such as sildenafil), as well as Viacreme (a topical formulation), and Zestra (a botanical massage oil). Further studies are needed to determine the safety and efficacy of these treatments in HSDD. □

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