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Hypoactive Sexual Desire Disorder: International Society for the Study of Women's Sexual Health (ISSWSH) Expert Consensus Panel Review

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Abstract

The objective of the International Society for the Study of Women's Sexual Health expert consensus panel was to develop a concise, clinically relevant, evidence-based review of the epidemiology, physiology, pathogenesis, diagnosis, and treatment of hypoactive sexual desire disorder (HSDD), a sexual dysfunction affecting approximately 10% of adult women. Etiologic factors include conditions or drugs that decrease brain dopamine, melanocortin, oxytocin, and norepinephrine levels and augment brain serotonin, endocannabinoid, prolactin, and opioid levels. Symptoms include lack or loss of motivation to participate in sexual activity due to absent or decreased spontaneous desire, sexual desire in response to erotic cues or stimulation, or ability to maintain desire or interest through sexual activity for at least 6 months, with accompanying distress. Treatment follows a biopsychosocial model and is guided by history and assessment of symptoms. Sex therapy has been the standard treatment, although there is a paucity of studies assessing efficacy, except for mindfulness-based cognitive behavior therapy. Bupropion and buspirone may be considered off-label treatments for HSDD, despite limited safety and efficacy data. Menopausal women with HSDD may benefit from off-label testosterone treatment, as evidenced by multiple clinical trials reporting some efficacy and short-term safety. Currently, flibanserin is the only Food and Drug Administration–approved medication to treat premenopausal women with generalized acquired HSDD. Based on existing data, we hypothesize that all these therapies alter central inhibitory and excitatory pathways. In conclusion, HSDD significantly affects quality of life in women and can effectively be managed by health care providers with appropriate assessments and individualized treatments.

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Hypoactive sexual desire disorder (HSDD), the most prevalent female sexual health problem,[1] was considered the persistent or recurrent deficiency or absence of sexual fantasies and desire for sexual activity with marked distress or interpersonal difficulty not otherwise accounted for by a general medical or psychiatric condition. An HSDD may be primary or secondary, lifelong or acquired, or generalized or situational. The broadened definition of HSDD may include any of the following: (1) lack of motivation for sexual activity as manifested by either reduced or absent spontaneous desire (sexual thoughts or fantasies) or reduced or absent responsive desire to erotic cues and stimulation or inability to maintain desire or interest through sexual activity or (2) loss of desire to initiate or participate in sexual activity, including behavioral responses such as avoidance of situations that could lead to sexual activity, that is, not secondary to sexual pain disorders, and is combined with clinically significant personal distress that includes frustration, grief, incompetence, loss, sadness, sorrow, or worry.[2]

Women with HSDD have been found to have impaired body image, self-confidence,

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and self-worth and to feel less connected to their partners.[3] Total health care expenditures compared with a control patient cohort were higher for women with HSDD, including outpatient office visits, prescription medication use, and other medical services, including radiology, laboratory, and outpatient procedures.[4] Comorbidities include depression and fatigue, similar to chronic conditions such as diabetes and back pain.[4,5] Research on the neuroendocrine central mechanisms of sexual desire has led to an improved understanding of the underlying pathogenesis of this biopsychosocial condition. Misunderstandings about HSDD exist, leaving few clinicians feeling competent to inquire about or treat this condition.

Despite the existence of numerous publications on HSDD, what has been lacking is a concise resource that assists the clinician (internists/primary care physicians, gynecologists, urologists, and advanced practice providers) in competently screening the female patient for HSDD and providing appropriate therapeutic options in a biopsychosocial paradigm. To this end, the International Society for the Study of Women's Sexual Health (ISSWSH) commissioned a panel of experts to write a concise review of the state-of-the-art understanding of the neural circuitry that regulates sexual desire, including a plausible explanation for persistent states of both normal and hypoactive sexual desire; a description of current on- and off-label treatment strategies, including their benefits and pitfalls; and a discussion of the rationale for using various therapies.

METHODS

In January 2016, the ISSWSH executive committee chose co-chairs for this project to identify potential panelists based on individuals' publications and research. After a planning conference call with the chosen experts, panelists were asked to individually perform an evidence-based literature review in their respective topics, identifying high-quality publications that they judged to be important and pertinent to the topic. Literature selection criteria were not systematically defined but were based on the expertise and experience of each panelist. The panel of 13 researchers and clinicians convened in Dallas, Texas, to present and discuss the current state of knowledge of HSDD. Participants declared potential conflicts of interest and were ISSWSH members and nonmembers. Panelists deliberated on the history, pathogenesis, diagnostic process, and treatment of HSDD and were assigned to writing groups for the development of this article.

The ISSWSH is a not-for-profit multidisciplinary academic and scientific organization dedicated to supporting the highest standards of ethics and professionalism in the research, education, and clinical practice of women's sexual health. The ISSWSH received an unrestricted grant from industry for the development of this document. No industry representatives were present in the closed committee meetings; there was no industry participation in the evidence selection, discussion, or creation of this document; and there was no attempt by industry to influence its content.

History of HSDD and Nosology

Historically, the diagnoses of female sexual dysfunctions have been made principally by clinical presentation and patient history rather than by nosology based on etiology, pathogenesis, and clinical phenomenology. Development of the diagnostic concept of HSDD is closely tied to the evolution of the *Diagnostic and Statistical Manual of Mental Disorders (DSM)* system, the diagnostic classification system of the American Psychiatric Association.[6] The diagnostic category of HSDD has existed for approximately 30 years, with its antecedents labeled differently but defined in a similar manner.[7-11] The definition has evolved with the text-revised versions of the *DSM-IV* and the *DSM-5*.[10,11] In the *DSM-5,* HSDD has been eliminated as a distinct nosologic entity and has been replaced with an amalgamation of the *DSM-IV* HSDD and female sexual arousal disorder diagnoses, termed female sexual interest/arousal disorder. This revised classification has been controversial among experts in the area of sexual medicine because there is little empirical support or validation of the new diagnostic category/criteria in contemporary clinical research.[12,13]

Concern over what some consider to be the inappropriate elimination of the diagnostic