Managing female sexual dysfunction

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Female sexual dysfunctions (FSDs) range from short-term aggravations to major emotional disturbances adversely affecting family and workplace. This review highlights diagnosis and management of the four most widely diagnosed FSDs. It initially focuses on hypoactive sexual desire disorder (HSDD) as a driving force at the heart of all other FSDs; nothing happens without sexual desire. Successful resolution of HSDD frequently facilitates resolution of other disorders. Central to understanding HSDD is the impact of aging female sexual endocrinology and its effect on both prevalence and expression patterns of FSD. Advances in this field have enabled introduction of some the most effective treatments yet described for HSDD. Sexual arousal disorder, though commonly affected by the same factors as HSDD, is heavily associated with psychotropic drugs and mood elevators. Orgasmic disorder is frequently the downstream result of other sexual dysfunctions, particularly HSDD, or the result of a major psychosexual trauma. Successful management of the underlying disorder often resolves orgasmic disorder. Sexual pain disorder is frequently the result of a gynecologic disorder, such as endometriosis, that can be substantially managed through successful treatment of that disorder. This article ends with the article's most important note: how to initiate the conversation. (Fertil Steril® 2013;100:905–15. ©2013 by American Society for Reproductive Medicine.)

Key Words: Female sexual dysfunction, sexual pain disorder, sexual arousal disorder

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Female sexual dysfunction (FSD) is a continuum of psychosexual disorders centered on sexual desire with interrelated problems of arousal, orgasm, and sexual pain that impairs quality of life for many women (Fig. 1) (1). FSD can afflict women of any age, and its expression changes with the endocrinology of advancing years. Impact is often subtle. FSD may express as seemingly unrelated emotional disturbances that degrade quality of life in family relationships, in the workplace, or both. For some, it is a minor short-term problem. For others it is debilitating.

Despite the importance of sexuality in women's lives, physicians ask about it reluctantly. Many seem not to know that sexuality matters. Others may not want to deal with the answers and questions that follow.

This article reviews effective clinical strategies and recent investigational approaches that lead to effective management of FSD.

SEXUAL HEALTH MATTERS

Sexual functioning is a vital life quality. FSD has had a reputation, however, for being intractable and difficult to treat. This has changed. Sophisticated physicians no longer dismiss or ignore FSD just because women do not ask. Female sexual dysfunctions have become a legitimate diagnosis with ICD-9 codes that can be billed (Table 1) (3). Today physicians caring for women serve their patients best by initiating discussions about sexual matters and knowing what to say when serious dialog follows.

FSD is common in the United States. In one recent survey (Prevalence of Female Sexual Problems Associated with Distress and Determinants of Treatment Seeking [PRESIDE]) of 31,581 U.S. women aged ≥18 years, nearly 44% reported having a sexual problem (desire, arousal, or orgasm specifically) with an unadjusted prevalence of 38.7% reporting hypoactive sexual desire (2). Sexual desire causing distress is one useful index of FSD prevalence. When the diagnosis of hypoactive sexual desire is associated with distress and becomes a disorder (hypoactive sexual desire disorder [HSDD]) as measured by a Female Sexual Distress Score of <15, the prevalence of this diagnosis is reported at 8.9% in 18–44-year-olds, 12.3% in 45–64-year-olds, and 7.4% in the age group ≥65 years (2).

FSD is an international problem. Culture-specific adaptations of the Female Sexual Function Index administered to numerous ethnic groups in Asia, Africa, the Middle East, and South America record prevalence of sexual dysfunctions in women that are similar to or greater than those observed in the U.S. (3–8). In most of these societies, the health care environment does not provide services for FSD (3–8). Where such services are available, cultural

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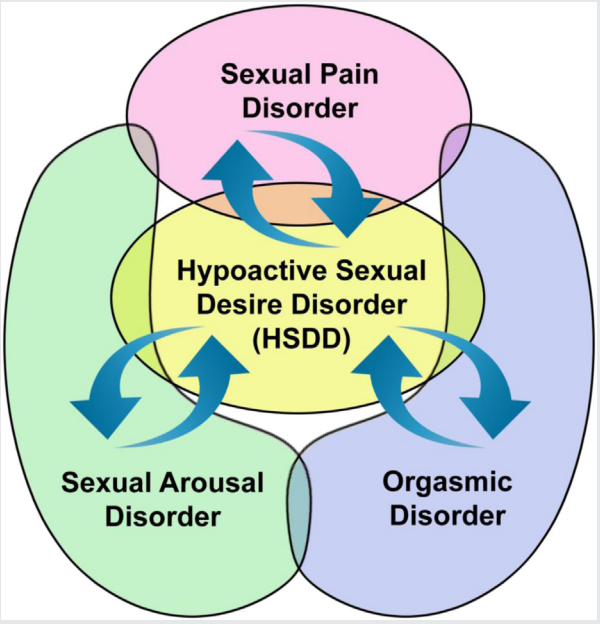
FIGURE 1



The four female sexual dysfunctions, hypoactive sexual desire disorder (HSDD), sexual arousal disorder, orgasmic disorder, and sexual pain disorder, flow into each other and outward as a continuum from HSDD. Successful resolution of HSDD frequently resolves or significantly augments resolution of the others. Resolution of any one of the others, when they are the primary complaint, also helps to resolve HSDD. This model is based on DSM-IV, which was replaced by DSM-V after May 2013. Adapted from Buster (1).

Buster. Female sexual dysfunction. Fertil Steril 2013.

TABLE 1

***Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV-TR) lists four categories of sexual dysfunctions that embody nearly all dysfunctions that will be encountered clinically.**

DSM-IV-TR Classifications of Female Sexual Dysfunctions

Sexual Desire Disorders (ICD 302.71)
- Hypoactive Sexual Desire Disorder—Absence or deficiency of sexual fantasies and/or desire (ICD 799.81)
- Sexual Aversion Disorder—Aversion to and avoidance of genital sexual contact with a partner (ICD F52.1)

Sexual Arousal Disorders (ICD 302.72)
- Female Sexual Arousal Disorder—Inability to attain or maintain adequate lubrication/swelling response of sexual excitement

Female Orgasmic Disorders (ICD 302.73)
- Female Orgasmic Disorder—Delay in or absence of orgasm after a normal sexual excitement phase

Sexual Pain Disorders (ICD 625.8)
- Dyspareunia—Genital pain associated with sexual intercourse (ICD 625.0)
- Vaginismus—Involuntary contraction of the perineal muscles preventing vaginal penetration (ICD 625.1)

Note: DSM-V was approved by consensus and released in May 2013 but was not used in the present discussion.

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taboos may prohibit discussion of female sexual matters outside of the family.

ENDOCRINOLOGY OF FEMALE SEXUAL FUNCTIONING

Mature female sexual endocrinology emerges with adrenarche through reproductive years and then declines in the peri- and postmenopausal years (Table 2). These endocrine changes significantly affect both prevalence and expression of FSD in different age groups.

Adolescence

Sexual desire in adolescent girls emerges with adrenarche, an event driven by increases in the prohormone DHEAS secreted by the retricularis zone of the adrenal cortex (Fig. 2) (9, 10). DHEAS is converted to testosterone (T) and dihydrotestosterone in target tissues. Increasing target tissue intracrine T is associated with the physical events of adrenarche, which in turn are associated with emerging sexual desire (Table 2).

Reproductive Years

Periovulatory sexual desire in adolescent girls and reproductive-age women is thought to be driven by augmented midcycle ovarian T secreted by the dominant follicle of the month (Fig. 3) (11). Thus, a midcycle rise in T occurs in conjunction with the LH surge and is directly linked to increased midcycle sexual desire (11, 12) Sexual desire is temporarily linked to periovulatory T in speech, body fragrance, and sexually attractive dress traditionally associated with increased fertility (12–14).

Perimenopausal and Postmenopausal Years

Female aging is associated with genetically determined declining DHEAS and T (Fig. 2) (9, 10, 15, 16). In parallel, sexual desire declines with age (17, 18). Decreased sexual desire with "reverse adrenarche" has long been associated with clinical disruptions (Table 2) of endogenous androgen decline. Examples include oophorectomy, oral estrogen therapy, adrenal insufficiency, corticosteroid adrenal suppression, and hypopituitarism (19–21).

Aging afflicts sexual endocrinology in other ways. Engagement in a secure and attractive relationship, a safe place, good health, and no drugs remain as core issues.

Declining estrogens. Estradiol secretion, chaotic during perimenopausal years, declines to very low levels after

TABLE 2

Reverse adrenarche, a model where events after menopause mirror adrenarche associated with declining DHEAS and T production.

Adrenarche	Menopausal senescence
Increasing sex hair	Loss of sex hair
Increasing libido	Loss of libido
Increasing bone density	Loss of bone density
Increasing stature	Loss of stature
Increasing muscle mass	Loss of muscle mass
Immune maturation	Immunosenescence

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