STQLZ COMMUNICATIONS

Work Sample

The Face of Female Sexual Dysfunction, Including Hypoactive Sexual Desire Disorder

(2nd in a series of 4 articles)

The proportion of adult women in the United States with one or more sexual disorders has been estimated to exceed 40% -- although only about half of those women are believed to be *distressed* by their problems. [1/ Shifren JL, *Obstet Gynecol.* 2008;112(5)/ p 970/ col. 1 ¶3] But 20%, or 1 in 5 women, is still indisputably a very significant slice of the female population -- and workforce.

What *is* sexual dysfunction? One succinct definition from the World Health Organization is as follows: "Sexual dysfunction covers the various ways in which an individual is unable to participate in a sexual relationship as he or she would wish. Sexual response is a psychosomatic process and both psychological and somatic [physical] causes are usually involved in the causation of sexual dysfunction." [2 / ICD-10 52]

The most commonly accepted definitions of sexual dysfunctions can be found in the "DSM-IV-TR" – the revised fourth edition of the *Diagnostic and Statistical Manual of Mental Disorders*, produced by the American Psychiatric Association. In its introduction to its definitions of particular categories of sexual dysfunction, the DSM-IV-TR described sexual dysfunctions as "characterized by disturbance in sexual desire and in the psycho-physiological changes that characterize the sexual response cycle and cause marked distress and interpersonal difficulty." [3A American Psychiatric Association, DSM-IV-TR]

Defining terms

The accompanying illustration (**Figure 1** below) offers the basic DSM definitions of six recognized female sexual disorders (FSDs). In addition, the World Health Organization's ICD (International Classification of Diseases) system also recognizes and codes these disorders, although ICD definitions embrace both male and female versions of each, whereas the DSM classifies them separately by gender.

Figure 1

FSDs: DSM-IV-TR Definitions

Sexual Desire Disorders	DSM-IV Definitions
Hypoactive Sexual Desire Disorder	Deficiency or absence of sexual fantasies and desire for sexual activity
Sexual Aversion Disorder	Aversion to and active avoidance of genital sexual contact with a sexual partner
Sexual Arousal Disorders	**DSM-IV Definitions**
Female Sexual Arousal Disorder	Persistent or recurrent inability to attain, or to maintain until completion of the sexual activity, an adequate lubrication-swelling response of sexual excitement
Orgasmic Disorders	**DSM-IV Definitions**
Female Orgasmic Disorder	Persistent or recurrent delayin, or absence of, orgasm following a normal sexual excitement phase
Sexual Pain Disorders	**DSM-IV Definitions**
Dyspareunia	Genital pain that is associated with sexual intercourse
Vaginismus	Recurrent or persistent involuntary contraction of the perineal muscles surrounding the outer third of the vagina penetration on with penis, finger, tampon or speculum is attempted.

Despite the apparent "tidiness" of these disorder descriptions, clinical distinctions may exist within each category. For example, "sexual aversion disorder" may involve any kind of sexual behavior or only a highly specific sexual act. [3/ Kingsberg S *Int Urogynecol J Pelvic Floor Dysfunct.* 2009;20 (suppl 1)/ pg. S36/col. 1 ¶2] Assessing the condition requires careful exploration of the patient's sexual history, "emphasizing the distinction between events that may have initiated aversion, and current behavior that may continue to reinforce the aversive response." [3/ col. 1 ¶3]

Similarly, sexual arousal disorder can be subdivided into "subjective" arousal disorder (the absence of the emotional dimension of arousal), "genital" arousal disorder (absence of vaginal lubrication and genital swelling caused by a rush of blood to the region), or "combined" arousal disorder (involving both subjective and genital sub-categories). [3/ col. 1 ¶ 5]

Orgasmic disorders also vary. While some women have difficulty experiencing an orgasm under any circumstances, others are considered to be "situationally" orgasmic – they can only achieve orgasm "readily and reliably with some specific forms of stimulation," but not intercourse. [3 /col. 2 ¶5] Another distinction is between women who have "lifelong orgasmic disorder" (never experienced an orgasm) and "acquired orgasmic disorder" (a problem that developed somewhere along the line). Different therapy strategies are used for each condition.

The effects of female sexual dysfunction, both on the individual experiencing it and her partner, can range from simple frustration to "a more pervasive loss of self-esteem, affecting general happiness and function within a couple or even within social and occupational spheres," according to Ronald Stevenson, M.D., a clinical professor at the University of British Columbia's department of psychiatry [4/pg. 674/col. 2]

That statement echoed a survey of sexual dysfunction in the United States published in 1999 that concluded, among other things, that sexual dysfunction is associated with poor quality of life – particularly for women. [5/ Laumann EO, JAMA. 1999;281(6)/ pg. 542/col. 2 ¶ 1] However, only about 20% of afflicted women sought professional help for their sexual problems, according to that study. [5/pg. 542/ col. 2 ¶1]

And what are the causes and mechanisms of sexual dysfunction? While some involve personal history and social factors, biological factors are also frequently involved – and often overlooked. A summary of the report of the Psychological and Interpersonal Committee of Sexual Function and Dysfunction delivered at the 2003 2nd International Consultation on Sexual Medicine in Paris noted that for women, "dysfunction" may come without specific complaints about narrow aspects of the physical sexual experience, but in the form of discontentment with sex due to a generalized lack of enjoyment, satisfaction and pleasure. But when traditional indicators of physical sexual "performance" (e.g., desire, arousal, orgasm and resolution) are addressed, perhaps medically, the presenting non-physical complaints frequently are also resolved. [6/ Althof SE, J Sex Med. 2005;2:796/ col. 2 ¶2]

The report also states that when it appears evident that sexual dysfunction has some psychosocial roots, that does not rule out contributing biological culprits. [7/ pg. 83/col. 2 ¶1] This points to the fact that a comprehensive assessment of sexual dysfunction should span both realms.

Moreover, sexual problems can be an early symptom of a non-sexual disease – or a side effect of the treatment of other diseases. [8/ Palacios S Maturitas. 2009;63(2)/ pg. 120 col.1 ¶3] Examples include depression (discussed briefly in another article in this supplement), heart disease and cancer. [9/ Goldberg Soc Sci Med. 1992/ pg. 263 col. 2/ ¶4]

Other studies have highlighted the role that epilepsy and drugs used to treat it play in sexual dysfunction [10./ Morrell MJ, Epilepsy Behav. 2005;6(3)/ pg. 363/col. 1 ¶5] and the impact of hyperlipidemia (high cholesterol and triglycerides in the blood) without heart disease. The hyperlipidemia study, which involved premenopausal women, concluded that such women with hyperlipidemia had significantly lower scores on the "Female Sexual Function Index" (described in the next article in this report) than women without high cholesterol. [11/ Esposito, K. Journal of Sexual Medicine. 2009;6:1/ pg. 1698/ col. 2 ¶3]

One of the challenges confronting some women suffering from all types of sexual disorders (see Figure 1), and often also their physicians, is overcoming embarrassment. Women may be reluctant to talk about sexual problems, particularly with a male doctor. And some physicians, particularly males, fear being perceived as behaving inappropriately in raising the topic of sexuality. [12/ Bartlik BD, *Epilepsy Behav.* 2005;7(suppl 2) /page S16 / col. 1 ¶ 2] Patients often schedule an appointment with a physician ostensibly to address a relatively trivial medical matter, but with the true

intention – not always acted upon – of discussing a sexual disorder. [12 / pg. S16 / ¶1]

Spotlight on sexual dysfunction

In a 1999 study led by Edward O. Laumann, PhD., covering 1,749 women between the ages of 18 and 59, only 20% of women with sexual disorders sought medical help to address them. [5/ Laumann EO, *JAMA.* 1999;281(6)/ col 3/ ¶1] Another, more recent (2009) survey covering 3,239 women aged 18 and above found a higher percentage – about one-third – of women with a distressing sexual disorder sought medical help. [13/ Shifren, JL, *J Women's Health.* 2009;18:/ pg. 461/abstract] This finding in the study, whose lead author was Jan L. Shifren, M.D., may suggest that sexual dysfunction is beginning to lose its "quasi-taboo" status.

The same survey found that when the topic of sexual function came up in a patient-physician dialog, about 80% of the time it was brought up by the patient. But physicians have been advised by Richard J. Goldberg and Dennis H. Novack, authors of a 1992 articled titled, "The Psychosocial Review of Systems," that if they take the initiative to ask their patients about possible sexual problems, they may discover fears and worries that account for other related medical complaints. [9/ Goldberg RJ, Novack DH. *Soc Sci Med.* 1992;35(3) pg. 263/col. 2/¶3]

Extensive surveying by the medical community has sought to find patterns and key variables of female sexual dysfunction. **Figure 2** below, for example, highlights the variable age bands for desire, arousal and orgasmic disorders and makes it clear that women of all ages are affected.

Figure 2

Prevalence of sexual problems associated with sexually related personal distress by 10-year age bands

Shifren. Prevalence of Distressing Sexual Problems. Obstet Gynecol 2008.

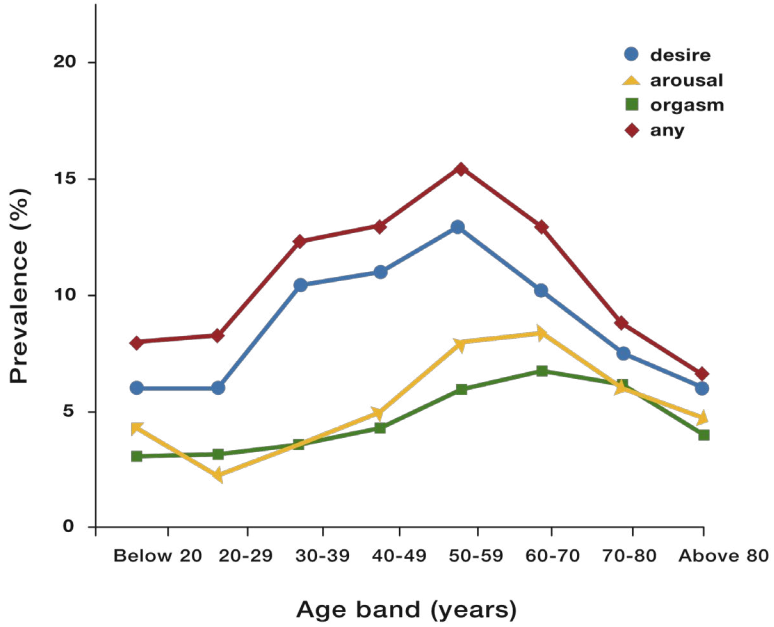
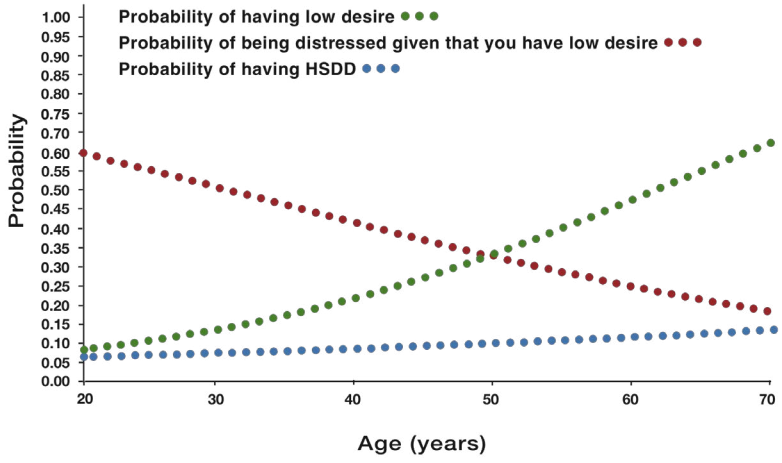


Figure 3 below presents similar data somewhat differently, with an exclusive focus on Hypoactive Sexual Desire Disorder (HSDD).

Figure 3

Probability of experiencing low desire, associated distress or hypoactive sexual desire disorder (HSDD),in the life span (N = 2467 women, aged 20-70, in four European countries).



Source: Graziottiin a Prevalence and evaluation of sexual health problems – HSDD. *J Sex Med* 2007;4(suppl 3): 211-219 .

Assessing sexual dysfunction

Examining yet another variable – the level of importance women assigned to sex in their lives – resulted in what the study's architects deemed as their "most intriguing finding:" The more important sex was to female subjects, the less likely they were to experience low desire, arousal or orgasmic function. One yet-to-be researched theory about this result, the authors suggested, is that "caring about one's sex life motivates women to seek solutions to any sexual concerns as they arise." [14/ Hayes RD, *J Sex Med 2008;5(7):1681-1693/* pg. 1691 / col. 1 ¶3]

But another interpretation of that result could also be drawn, the authors conceded: That some women who experience sexual dysfunction simply resign themselves to it and subsequently will themselves to conclude that sex is no longer important to them. That interpretation of the data however, even if "true" from the woman's perspective, might not be accurate for many women from a broader perspective, given the physical and emotional benefits of sexual activity described in the first article of this report.

Assessing and treating commonplace sexual dysfunctions generally does not need to be left to sexual medicine specialists – assuming that family physicians, gynecologists and others who treat a broad array of female medical issues have had some basic training in this area. To correctly diagnose a sexual problem, physicians

should also be familiar and confident when asking patients about their sexual functions. [12/ pg. S16/col 1 / ¶1] However, too few PCPs are trained in women's sexual health—less than 10 hours of curriculum time is dedicated to human sexual health education.[15] [15/Solursh/pS43/c1/¶3, Fig2] (Read the fourth article in this report for insights on the importance of properly diagnosing HSDD and the methods by which HSDD is diagnosed today.)

HSDD: A distressing problem for many women

Low sexual desire with associated distress is the most commonly reported female sexual complaint. Approximately 1 in 10 women reported low sexual desire with associated distress, which may be hypoactive sexual desire disorder (HSDD). HSDD is a persistent or recurring decrease or lack of sexual desire that causes distress for the patient, may put a strain on relationships with partners, and is not due to the effects of a substance, including medications, or other medical condition, according to the American Psychiatric Association's definition in its DSM- IV-TR manual.

HSDD, with its essential "distress" component, is just that…a *distressing* problem for women. As a result, most healthcare providers (HCPs) would agree that HSDD is important to address. Distressed women may take the initiative to get help for HSDD or HCPs may proactively attempt to break through the barrier of their female patients' reluctance to discuss their reduced sexual desire and related distress.

In one study, titled "Presence of a sexual problem may not affect women's satisfaction from their sexual function," 164 women were asked which sexual problem is most upsetting to them. Of those reporting a "bothersome sexual problem" (41% of the total), the largest percentage (coincidentally 41% of the 41%, or 17% of all women surveyed) identified "little or no interest in sex" on their part. [16/ Ferenidou F, *J Sex Med.* 2008;5(3): pg. 633 col. 1 ¶4]

Beyond simply measuring its prevalence, medical researchers have deployed various medical techniques to gauge and understand the nature of HSDD. In one study, for example, researchers used magnetic resonance imaging (MRI) technology in conjunction with erotic and non-erotic videos to compare brain activity in women already diagnosed with HSDD to women with no history of sexual dysfunction. They discovered neurological distinctions in their responses to various stimuli. [17/ Arnow BA, *Neuroscience*. 2009; vol 158 page 484 (abstract)]

Elements of desire

Commenting on the "desire" element of HSDD, Sheryl Kingsberg and Stanley Althof of Case Western University's medical school and the Center for Marital and Sexual Health of South Florida, respectively, spotlighted Case Western Reserve University Clinical Professor of Psychiatry Stephen B. Levine, M.D.'s, 1992 book, *Sexual Life: A Clinician's Guide*. Citing that book, Kingsberg and Althof wrote that sexual desire has three distinct yet interrelated components:

- **Drive**, "the biological component based on neuroendocrine mechanisms… [that] patients recognize as feeling 'horny'";
- **Cognitive**, reflecting "a person's expectations, beliefs and values related to sex;" and the
- **Emotional or interpersonal** dimension, "characterized by the willingness of a

person to engage in sexual activity." [3/pg. S35 col 1 ¶5]

Pinpointing the element of desire that appears to be driving a HSDD case "is vital for any physician assessing or treating sexual problems because treatment is vastly different based on which components of desire have been impaired," Kingsberg and Althof wrote. [3/ pg. S35 col. 2 ¶ 2]

And as noted above and as illustrated by **Figure 1** in the *last* article in this report *(Percent of Women with at Least One Prescription Treatment Associated with HSDD)*, physicians must explore whether potential contributing factors – clinical depression, other medical conditions, medications and so on – are involved.

Comorbid conditions

It is estimated that 32% of women with HSDD have no comorbidity (i.e., other associated medical conditions), while 68% do have comorbid conditions. [18/Foley K, *Health Economics & Outcomes Research,*]

One recent study [1/ pg. 976 /col. 2 /¶ 4] produced findings consistent with previous research showing a strong correlation between depression and HSDD (see final article in this report).

Other medical conditions have been correlated with FSDs in general and HSDD (or desire) in particular. It is important to note, however, that mere correlations do not necessarily suggest that treating one condition will resolve others, or vice versa. Those other conditions include:

- **Type 1 diabetes:** 35% of women with this condition were found to have at least one FSD, the most common of which was loss of libido; [19/ Enzlin P, *Diabetes Care.* 2009;32(5)/pg. 780/abstract]
- **Chronic kidney disease (CKD):** In one study, most women with CKD reported decreased libido, consistent with HSDD, along with other FSDs [20/ Anantharaman P, *Adv Chronic Kidney Dis.* 2007;14(2)/ pg. 120 / pg. 120/col. 1/ ¶ 4]
- **Hyperlipidemia** (i.e., "high cholesterol"): One study of premenopausal women found that about half (51%) of women with the condition (defined for this study as having LDL above 160 and HDL below 50) scored low on the "female sexual function index," compared to 21% of women without hyperlipidemia. [21/ Esposito K, *J Sex Med. 2009;6(6)/ pg. 1696/abstract]*
- **Surgical menopause:** Although female sexual function tends to decrease following natural menopause, that pattern occurs more dramatically for women who had hysterectomies or surgical removal of both ovaries (a bilateral oophorectomy). [22/ Dennerstein L, *J Sex Med.* 2006;3(2)/ pg. 212/abstract]

The presence of comorbid conditions such as those enumerated above may result in the sexual problem's failure to meet the DSM IV-TR definition of HSDD. But comorbidity does not necessarily suggest that the diminished sexual desire is untreatable – simply that its treatment may differ according to the particular comorbidity involved.

For women who are impacted by low sexual desire and distressed about it –– as well as their spouses or partners -- overcoming the condition is no doubt far more important than its DSM classification. By understanding the medical dimension of HSDD, employers are better positioned to play a constructive role in ensuring that affected employees have access to appropriate disease management.

# # #

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