Assessment and management of female sexual dysfunction

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Approximately 43% of women report symptoms of sexual dysfunction.[1] Few other health conditions have such a high prevalence. Although FDA-approved treatment is available for women experiencing dyspareunia related to vulvovaginal atrophy (VVA), no medication has been approved by the FDA to treat female sexual dysfunction (FSD)—that is, problems related to libido, arousal, and orgasm in women. Nevertheless, these complaints are relevant to nurse practitioners providing healthcare to women and are important to address.

Overview

Masters and Johnson[2] are hailed as the pioneers of sexual research dating back to 1957. Their four-stage model of human sexual response comprised excitement, plateau, orgasm, and resolution; according to Masters and Johnson, these four stages proceed in a linear fashion. In 1997, Whipple and Brash-McGreer[3] introduced the circular model of female sexual response, which comprised four stages: seduction (encompassing desire), sensations (excitement and plateau), surrender (orgasm), and reflection (resolution). The circular model showed how pleasure and satisfaction during one sexual experience could lead to the seduction phase of the next sexual experience. In 2001, Basson[4] published a revised sexual response model specific to women that incorporated the importance of emotional intimacy, sexual stimuli, and relationship satisfaction. Unlike Masters and Johnson, whose linear model of sexual response applied to both genders, Basson introduced a nonlinear model, which acknowledged that female sexual functioning proceeds in a more complex and circuitous manner than male sexual functioning. These models are summarized in an Association of Reproductive Health Professionals **clinical fact sheet** on female sexual response.

In 1998, amidst all the research about human sexual function, sildenafil (Viagra) was introduced as a pharmacologic intervention for erectile dysfunction, revolutionizing the concept of a human sexual problem as being amenable to pharmacotherapy. At that point, research in the realm of female sexuality was limited; most sexual health studies enrolled only males, with results extrapolated to the female population.

In the 15 years that have elapsed since the approval of sildenafil and medications like it, no treatment has been approved by the FDA for FSD other than Eros Therapy, a clitoral suction device that was discontinued due to the cost and the minimal consumer response. The circular and nonlinear models for female sexual response demonstrate why not: Because of the circular pathway and the inclusion of emotional components, it is nearly impossible to create a "magic pill" that addresses all the potential causes of FSD. In order to appropriately identify, diagnose, and manage patients with FSD, a holistic approach must be uti-

Online resources

- American Association of Sexuality Educators, Counselors and Therapists
- American Society for Reproductive Medicine
- Association of Reproductive Health Professionals
- International Society for the Study of Vulvovaginal Disease
- International Society for the Study of Women's Sexual Health
- National Association of Nurse Practitioners in Women's Health
- National Vulvodynia Association
- Society for Sex Therapy and Research

lized and adapted to each individual woman.

Assessment

One of the main reasons for healthcare practitioner (HCP) failure to address women's FSD complaints is the lack of time. One way to expedite such a discussion is to utilize screening tools that patients can fill out prior to their scheduled appointment. The **Female Sexual Function Index** is composed of 6 categories of questions related to desire, arousal, lubrication, orgasm, satisfaction and pain.[5] This index identifies the exact complaint(s) and quantifies the severity of the symptom(s). The **Female Sexual Distress Scale** – Revised (FSDS-R) determines whether the problem is distressing to the patient through a series of 13 specific questions.[6] To diagnose a patient with FSD, she must have symptoms that cause interpersonal distress. The FSDS-R not only identifies distress but also supports a potential diagnosis.

Another limitation to HCP management of FSD is a lack of sexual health training. According to Haboubi and Lincoln,[7] 90% of HCPs agree that addressing sexual concerns should be included in a holistic care plan, although 86% were found to be unprepared to deal with these problems and 94% were unlikely to initiate a relevant discussion with patients. Many professional organizations can help prepare HCPs, including NPs, to better address and treat FSD (*Online resources*).

After review of screening questionnaires and the initial consultation, NPs should perform a physical examination. In some cases, only a general visual scan is needed. In most cases in which a patient reports a sexual complaint, however, a pelvic exam is warranted. NPs will need to do a full vulvar inspection, especially when women report diminished sensation, difficulty with arousal/orgasm, and pain. Laboratory tests, including wet prep, vaginal pH, vaginal cultures, and serum blood testing, further enhance FSD evaluation. NPs need to inform patients how they will receive these results—for example, in an office follow-up visit or by phone call, email, or mail. Patients should receive a written plan detailing the diagnosis, any referral(s) with contact information, the treatment regimen, and a follow-up appointment. Because of the sensitive nature of FSD, this last recommendation is vital. Many patients are nervous or anxious when discussing such intimate matters and do not remember everything said during the initial visit.

Management

With the paucity of FDA-approved treatment options for manifestations of FSD, NPs must utilize a holistic approach tailored to patients' individual needs. Collaboration with outside providers such as physical therapists, sex therapists, reputable compounding pharmacists, OB/GYNs, and endocrinologists can be helpful. In fact, NPs are advised to establish a network of local collaborating professionals who are familiar with FSD and welcome receiving such referrals. As stated previously, the NP and the patient should agree on a follow-up plan before the patient leaves the office; this plan is documented in the health record, which establishes a degree of accountability for the patient and reinforces the NP's willingness to manage her concerns.

The only FDA-approved treatments for VVA-related dyspareunia are conjugated estrogens vaginal cream (Premarin Vaginal Cream) and ospemifene (Osphena), a non-estrogen-containing oral tablet. Although treatment options for the remaining FSD diagnoses are limited, off-label therapies such as compounded testosterone replacement, oxytocin troches/spray, and arousal creams containing such ingredients as sildenafil, aminophylline, and l-argi-

nine, can be considered in appropriate circumstances. Given the lack of regulation with off-label treatment options, close management and follow-up are mandatory. Over the past decade, pharmaceutical company interest in FSD has intensified. NPs can expect to have better treatment options available in the near future for problems related to female libido, arousal, and orgasm.

Conclusion

With the Internet at their fingertips, many women with symptoms of FSD are researching their symptoms, learning that help is available, and seeking out an HCP to help them deal with their problem. For now at least, treatment of FSD is complicated and multifaceted, requiring thoughtful holistic intervention. As with any other health complaint, patients deserve acknowledgment and validity of their FSD, as well as treatment and/or referral as appropriate.

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