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Review article

Female Sexual Dysfunction, Updated Review

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Abstract

Women are becoming more aware of the consequences of sexual dysfunction on their lives and families. Female sexual dysfunction diagnosis and therapy present special challenges because of the conservative character of women. Several cultural and religious factors influence sexual practices and the disruption that it produces. We run a search across many databases for Female sexual dysfunction (FSD) in order to examine the most recent causes, definitions, diagnostic techniques, and therapy for FSD. Understanding the primary contributing variables, and the availability of numerous treatment modalities helps women to appreciate the ramifications of FSD while also empowering them to create channels of communication with their partners and health care professionals to seek help. Although some difficulties may provide moral dilemmas for health practitioners, having the cultural competency to address these concerns will promote enhanced health care delivery. This review was designed to examine and describe the many varieties of female sexual dysfunction that have been discovered in women throughout the world, as well as to encourage a better knowledge of their concerns in order to improve life quality.

Keywords: *Female Sexual Dysfunction, Vaginismus, Dyspareunia, Sexual Desire Dysfunction.*

Introduction

Female Sexual dysfunction (FSD (refers to a group of female-specific conditions. It might be physical, psychological, or both. Sexual function issues are quite frequent, impacting more than 40% of males and 50% of women who reported sexual response issues [1]. Sexual dysfunction can harm female's mental health, and self-evaluation. Women typically anticipate their doctors to inquire about their sexual health. Reluctance to discuss sexual issues is frequently caused by patient discomfort and shame about bringing up the subject; many women will address the subject only after a direct doctor enquiry [2]. The International Classification of Diseases, 10th Edition is currently in use (ICD-10-CM) and DSM-5 are two officially endorsed systems with international significance. The ICD-10-CM is largely concerned with the definition of medical conditions, whereas the DSM-5 is primarily concerned with the definition of mental problems. Disorders are classified as organic or non-organic in the ICD-10-CM. Vaginismus and dyspareunia of organic cause are the organic FSD category [3].

Non-organic FSD codes, on the other hand, include a loss of sexual desire, satisfaction, a failure of genital reaction, orgasmic dysfunction, non-organic vaginismus, or dyspareunia. In women, libido is influenced by psychological variables such as relationship issues. physical issues such as weight or arthritis; medical illnesses; and drugs [4].

In one study, 30 percent of women who complained of low libido improved with just a placebo. This demonstrates how critical it is to treat psychological issues. Some women are hesitant to express their suffering because of a history of negative medical interactions with physicians, prior trauma, or a basic religious and/or cultural belief system about sex [5].

The effective treatment for this illness is guided by a thorough history and discussions with the patient. The consequences of FSD do not involve women only, but extend to their male partners.

Male partners of females experiencing sexual pain may endure negative emotional implications such as anger, frustration, despair, Erectile dysfunction, sexual dissatisfaction, whereas female partners experiencing persistent sexual dysfunctions encounter psychological consequences such as severe depression and lower life quality, occasionally leading to suicide. this may be in part to the frustrations of not being understood by healthcare practitioners and the lack of a treatment [6].

FSD can have physiological consequences for women as well; for example, poor sexual desire related to low levels of testosterone might affect bone strength, body adipose tissue, lean muscle mass, cardiovascular risks, hyperinsulinemia, and moods. Decreased testosterone levels can also be caused by other disorders, such as hypopituitarism, premature failure of the ovaries, or adrenal gland insufficiency [7].

The FSD has raised incidence yet low counseling by affected women because of the aforementioned causes which make many of them reluctant to seek medical help. To assess the severity of sexual dysfunction self-reported questionnaires are available; the most widely accepted is the Female Sexual Function Index (FSFI). Because of its straightforward phrasing and scale structure and relative shortness, FSFI has become the most extensively used screening FSD. The FSFI contains a 19-item self-report measure that offers scores on overall levels of sexual function as well as the key components of sex, such as sexual desire, arousal, orgasm, pain, and pleasure [2].

Although no self-report questionnaire can completely replace the clinical interview, the FSFI does give insight into the severity and kind of sexual dysfunction reported, that can be used to direct further examination within the range of FSD diagnoses. This review was designed to discuss up to date definitions, causes, and management protocols for FSD and address how we can limit its grave complication on married couples.

Normal Sexual cycle in Normal Females

A normal sexual health is "a condition of physically, emotionally, mentally, and social well-being in regard to sexuality; it is not just the state of being free of disease, dysfunction, or incapacity." Sexual health necessitates a positive and respectful attitude toward sexuality and sexual relationships, as well as the ability to have joyful and safe sexual encounters that are free of compulsion, prejudice, and violence. To achieve and sustain sexual health, all people's sexual rights must be valued, guarded, and fulfilled". Sexual health is critical for general well-being, and maintaining a good quality of life [8]. In the year 1976 Kaplan proposed a 3 steps model of sexual response in female [desire, excitement and orgasm], while Basson suggested a 5 steps model both are described in figure 1. Basson's circular model of sexual response includes the following stages: willing, desire, sexual arousal, Sexual Contentment and Pleasure and orgasm [9].

Willingness and consent Women who are open and consenting to sexual engagement will exhibit interactive sexual desire; consent is essential to sexual health and optimal sexual performance. America Psychiatry Association integrated desire and arousal problems within a single diagnosis (female sexual interest/arousal disorder) [10].

Desire is defined as a "anticipatory motivating state for the rewards of sexual engagement, such as the desire to have babies and create a family; if such rewards decline, so may sexual desire."

Sexual arousal is divided into two types: sexual arousal and genital arousal. Subjective sexual arousal is defined as mental involvement and attention upon sexual stimulation, whereas genital arousal is defined as physical changes in the body in reaction to sexual stimuli [11].

Orgasm is the feeling of intense pleasure; however, orgasm is not required for normal sex activity. A healthy sex function entails the ability to engage in sexual activity in how one desires

Sexual Contentment and Pleasure: Sexual experiences that are comfortable, painless, and safe are indicators of healthy sexual function. Increases in vaginal moisture make it easier [12].

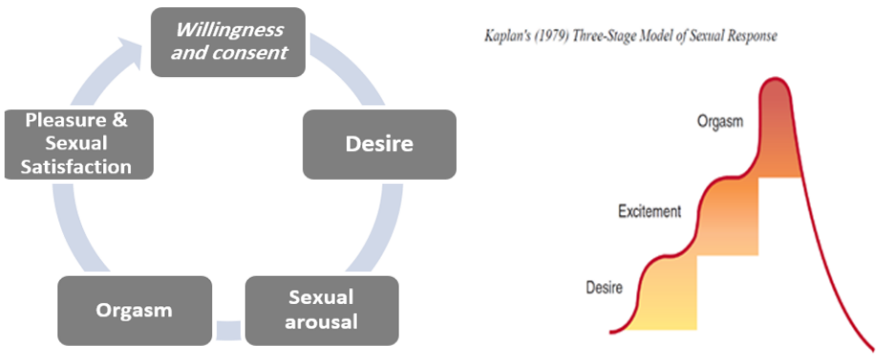

Fig 1. *The proposed female sexual cycle as described by Kaplan (left) and Bason (right)*

Predisposing Factors for FSD

They are frequently multifactorial and could be categorized into: biological, psychological, sociocultural, and interpersonal [13].

Physiological causes; Numerous physiological factors, such as pregnancy, childbearing, menopause, and age, can have an influence on women's sexual performance. Medications, such as contraceptive pills and antidepressant medications, can influence a woman's sexual drive, ability to orgasm, and maybe even the ability to feel pleasure. Medical illness diabetes mellitus, thyroid diseases, hypertensive disorders, hyperlipidemia, heart disease, hyperlipidemia, and cancer can all have a negative impact on sexual performance. Women who have poor overall health are more likely to experience sexual pain. Dermatological causes, peripheral neuropathy, nerve damage, and genital surgery can all interfere with genital sensation. [14-16].

Psychological cause

Poor mental health, including distress, stress, depressed mood, and anxiety, is linked to female sexual dysfunction. FSD is associated with sexual abuse. Women's sexual performance can be influenced by their self-image and body image [17].

Sociocultural causes

Religious or cultural beliefs can impact libido and orgasm. Low academic achievement is associated with sexual function problems; higher education levels offer some protection against some sexual function difficulties. Ethnicity plays a role in the frequency and type of dysfunction, as well as societal pressures, cultural norms, and anticipations [18].

Causes affecting interpersonal relationships.

Relationship factors may play a significant role in women's sexual function issues.

Sexual dysfunction in a female's partner may play a part in her own sexual dysfunction.

To address FSD; they are better sub-divided into 2 major categories [3]:

- Sexual desire and arousal disorders
- Sexual pain disorder

Disorders of Sexual Desire and Arousal

Sexual arousal disorder is characterized by a persistent or recurring failure to reach or sustain sufficient sexual excitement, that leads to personal distress. It is associated with aging and menopause, as well as psychosocial stressors and peripheral neuropathies.

Orgasmic disorder is defined as either the total lack of or the recurring difficulty in achieving orgasm after sufficient sexual stimuli. Primary orgasm disorders are usually caused by emotional assault or sexual trauma.

Secondary orgasmic disorder can be brought on by hormonal imbalances, surgical trauma, or medicines [5].

Sexual Pain Disorders

A. *Vaginismus*

To truly understand vaginismus, we must appreciate that it is a combination of two elements: psychological and physical. By definition vaginismus is a physiological disorder characterized by fear and anxiety about vaginal penetration, as well as a physical disorder characterized by repeated or persistent involuntary pelvic muscle contractions (levator ani muscle). A detailed history is used to confirm the diagnosis of vaginismus. It has a prevalence of 5%-17%. Other causes of sexual pain such as herpetic infections, lichen sclerosis, must be excluded. Vaginismus could be classified as primary or secondary with a diverse severity affected women cannot endure a GYN examination, which causes marital difficulties, distress, and feelings of hopelessness, and is a major cause of divorce. When compared to other types of pelvic pain, it has a high treatment success rate [19].

B. *Vulvodynia*

Vulval discomfort or chronic pain that lasts at least 3 months has been defined as vulvodynia. When all other conditions have been ruled out, it is diagnosed. The pain character is burning, or irritation connected which makes sitting for long periods of time or having sex impossible. The associated pain may be constant or intermittent, generalized or localized to a specific area. It could happen only when the sensitive area is touched (provoked). Upon conducting a pelvic exam; vulvar inspection may reveal a slightly inflamed, or a normal-looking vulva. Cotton swab test: Using a moist cotton swab, we gently confirm the vulvar region for specific, localized areas of pain [20].

C. *Vestibulodynia*
An equivalent disorder causes pain only when pressure is exerted in the area around the vaginal entrance [21].

D. *Dyspareunia*
Recurrent or persistent genital pain associated with sexual intercourse. The rates of dyspareunia reported in the literature range from 14 to 18 percent. Pain can be excruciating and it can be superficial or deep-seated dyspareunia. the former can be caused by infections, atrophic dermatitis, or vaginitis. Eczema, Behjet disease, or even vulval carcinoma. Post-delivery dyspareunia is a well-known cause particularly when there is a history of trauma during delivery. Deep dyspareunia is attributed to pelvic inflammatory diseases, adhesions, endometriosis, and ovarian cysts. Ectopic pregnancy, irritable bowel disease, cystitis, or malignancies can be also a cause [22].

Approaching patients with FSD
A thorough medical and surgical history, as well as a drug history, should be included in the evaluation. Current and previous relationship status, as well as sexual orientation, should be included in the sexual history. In the social history, questions about smoking, alcohol, the use of illegal drugs, and any stress at home or at work should be asked. Depression, stress, and relationship problems are all important psychosocial factors [23].
To assess sexual dysfunction, self-reported questionnaires are available; [The Female Sexual Function Index FSI]. It's used to screen, measure sexual dysfunction; its severity, and its components. It allows a better capacity to measure therapy response. the FSFI gives insight and directs further examination within the range of FSD diagnoses [2]. A
A genital examination is required, to rule out organic pathologies like tumors, polyps, and diseases such as endometriosis and pelvic inflammatory disorders. Nevertheless, multiple consultations may be required before the woman is willing to be examined. A speculum to examine the vaginal walls may also be used. Some women who have painful intercourse also have pain during a pelvic examination. If the exam becomes too painful for the patient, we may stop it [24].

Basic lab tests are of value
- Blood and Serum biochemistry, including complete blood counts, lipid profile for diagnosing vascular risk factors; hyperlipidemia, diabetes, and kidney diseases. T
- Thyroid function tests for excluding hypothyroidism.
- Follicle-stimulating hormone, Latinizing hormone, and estrogen hormone all are checked to assess the functional integrity of the hypothalamus, pituitary gland and gonadal axis [5,19,23].

Treatment of FSD
FSD is a multifaceted and complicated community issue. A full psychological and medical examination should be included in the treatment of FSD 25
- Any underlying cause, such as local infections or polyps, should be addressed.
- Lifestyle changes and home remedies: might help to lessen the intensity of symptoms as avoid wearing underwear that is too tight or has a nylon texture, preferably be of cotton textile. Avoid using hot paths and scrubbing areas aggressively. Biking or horseback riding can put a strain on the vulva and should be avoided [23,26].
- Drugs and Hormones: Estrogen therapy for vaginal atrophy. Tibolone is approved to treat postmenopausal women's loss of desire. Testosterone replacement treatment can also be useful in postmenopausal women who have no other recognized reason of decreased sexual desire. Women with endometriosis get benefit treatment by Medroxy progesterone's acetate [27,28].
- Behavioral, physical, and psychosexual treatment are all available. have roles in couples who may need counseling for relationship problems. Sensate focus exercise to investigate sexual desire, particularly in Vaginismus cases. Biofeedback of the pelvic floor muscles Vaginal trainers, especially in situations of vaginismus [29].
- Pain modifiers Amitriptyline, gabapentin, and carbamazepine are very useful in cases of vulvodynia20.
- Botox injections (botulinum toxin A) It was effective in treating secondary vaginismus by injection into the bulbospongiosus muscle was relaxed, and women could engage in regular sexual activity [30].
- Surgery a few individuals, particularly those with provoked vulvodynia, may benefit from surgery like vestibulectomy [31].

Conclusion

Difficulties with sexual function are quite common among women. These issues can have a detrimental effect on a variety of aspects of women's lives, including their mental, physical and social well-being. Numerous obstacles prevent women from seeking help for these types of difficulties, including reluctance to discuss sexual concerns and lack of knowledge, both by women and healthcare practitioners who are unsure how to help or cannot help. By establishing this knowledge, women will determine when they should seek treatment to improve the quality of life for women and their families.

References

1. Pacik PT, Geletta S. Vaginismus treatment: clinical trials follow up 241 patients. Sexual medicine. 2017 Jun 1;5(2): e114-23.
2. Meston CM, Freihart BK, Handy AB, Kilimnik CD, Rosen RC. Scoring and Interpretation of the FSFI: What can be Learned From 20 Years of use? The journal of sexual medicine. 2020 Jan 1;17(1):17-25
3. Parameshwaran S, Chandra PS. The New Avatar of Female Sexual Dysfunction in ICD-11—Will It Herald a Better Future? Journal of Psychosexual Health. 2019 Apr;1(2):111-3
4. Vaginismus: Frequency, Definitions, Diagnostic Criteria, Formation | Health of Man http://health-man.com.ua/article/view/225572
5. Brotto LA. Evidence-based treatments for low sexual desire in women. Frontiers in Neuroendocrinology. 2017 Apr 1; 45:11-7.
6. Simon JA, Nappi RE, Kingsberg SA, Maamari R, Brown V. Clarifying Vaginal Atrophy's Impact on Sex and Relationships (CLOSER) survey: emotional and physical impact of vaginal discomfort on North American postmenopausal women and their partners. Menopause. 2014 Feb 1;21(2):137-42.
7. Bassil N, Alkaade S, Morley JE. The benefits and risks of testosterone replacement therapy: a review. Therapeutics and clinical risk management. 2009; 5:427.
8. Chou D, Cottler S, Khosla R, Reed GM, Say L. Sexual health in the International Classification of Diseases (ICD): implications for measurement and beyond. Reproductive health matters. 2015 Nov 1;23(46):185-92.
9. Balon R. Is Basson's model of sexual response relevant? A commentary. Journal of Sex & Marital Therapy. 2021 Feb 11:1-4.
10. Darden MC, Ehman AC, Lair EC, Gross AM. Sexual compliance: Examining the relationships among sexual want, sexual consent, and sexual assertiveness. Sexuality & Culture. 2019 Mar;23(1):220-35.
11. Pfaus JG, Kippin TE, Coria-Avila GA, Gelez H, Afonso VM, Ismail N, Parada M. Who, what, where, when (and maybe even why)? How the experience of sexual reward connects sexual desire, preference, and performance. Archives of sexual behavior. 2012 Feb;41(1):31-62.
12. Pfaus JG. Reviews: Pathways of sexual desire. The journal of sexual medicine. 2009 Jun 1;6(6):1506-33
13. Anastasiadis AG, Davis AR, Ghafar MA, Burchardt M, Shabsigh R. The epidemiology and definition of female sexual disorders. World journal of urology. 2002 Jun;20(2):74-8.
14. McCabe MP, Sharlip ID, Atalla E, Balon R, Fisher AD, Laumann E, Lee SW, Lewis R, Segraves RT. Definitions of sexual dysfunctions in women and men: a consensus statement from the Fourth International Consultation on Sexual Medicine 2015. The journal of sexual medicine. 2016 Feb 1;13(2):135-43.
15. Nori W, Ali AI, Hamed RM. Thyroid Disease and Anaemia Among Early Pregnant Iraqi Women. AlQalam Journal of Medical and Applied Sciences. 2021 May 4;4(2):34-9.
16. Hassan WN, Hamed RM, Akram W. Screening for Cervical Cancer by Sequential Examination of the Cervix. Journal of Biotechnology Research Center. 2020 Dec 15;14(1):52-62.
17. Pâquet M, Rosen NO, Steben M, Mayrand MH, Santerre-Baillargeon M, Bergeron S. Daily anxiety and depressive symptoms in couples coping with vulvodynia: Associations with women's pain, women's sexual function, and both partners' sexual distress. The Journal of Pain. 2018 May 1;19(5):552-61.
18. Robinson B, Munns RA, Weber-Main AM, Lowe MA, Raymond NC. Application of the sexual health model in the long-term treatment of hypoactive sexual desire and female orgasmic disorder. Archives of Sexual Behavior. 2011 Apr;40(2):469-78.
19. Rahman S. Female sexual dysfunction among Muslim women: Increasing awareness to improve overall evaluation and treatment. Sexual medicine reviews. 2018 Oct 1;6(4):535-47.
20. Bergeron S, Reed BD, Wesselmann U, Bohm-Starke N. Vulvodynia. Nature Reviews Disease Primers. 2020 Apr 30;6(1):1-21.
21. Brotto LA, Bergeron S, Zdaniuk B, Driscoll M, Grabovac A, Sadownik LA, Smith KB, Basson R. A comparison of mindfulness-based cognitive therapy vs cognitive behavioral therapy for the treatment of provoked vestibulodynia in a hospital clinic setting. The journal of sexual medicine. 2019 Jun 1;16(6):909-23.
22. Schvartzman R, Schvartzman L, Ferreira CF, Vettorazzi J, Bertotto A, Wender MC. Physical therapy intervention for women with dyspareunia: a randomized clinical trial. Journal of sex & marital therapy. 2019 Jul 4;45(5):378-94.
23. Mayo Clinic website; https://www.mayoclinic.org/diseases-conditions/vulvodynia/diagnosis-treatment/drc-20353427 Accessed on 15-3-2022.

24. Kling JM, Kapoor E, Mara K, Faubion SS. Associations of sleep and female sexual function: good sleep quality matters. Menopause. 2021 Jun 1;28(6):619-25.
25. Maseroli E, Scavello I, Rastrelli G, Limoncin E, Cipriani S, Corona G, Fambrini M, Magini A, Jannini EA, Maggi M, Vignozzi L. Outcome of medical and psychosexual interventions for vaginismus: a systematic review and meta-analysis. The journal of sexual medicine. 2018 Dec 1;15(12):1752-64.
26. Mohammadian S, Dolatshahi B. Sexual problems in Tehran: Prevalence and associated factors. Journal of education and health promotion. 2019;8.
27. Kling JM, Kapoor E, Mara K, Faubion SS. Associations of sleep and female sexual function: good sleep quality matters. Menopause. 2021 Jun 1;28(6):619-25.
28. Mohammadian S, Dolatshahi B. Sexual problems in Tehran: Prevalence and associated factors. Journal of education and health promotion. 2019;8.
29. Kuile MM, Both S, van Lankveld JJ. Cognitive behavioral therapy for sexual dysfunctions in women. Psychiatric Clinics. 2010 Sep 1;33(3):595-610.
30. Pacik PT. Vaginismus: review of current concepts and treatment using botox injections, bupivacaine injections, and progressive dilation with the patient under anesthesia. Aesthetic plastic surgery. 2011 Dec;35(6):1160-4.
31. Edwards SK, Bates CM, Lewis F, Sethi G, Grover D. 2014 UK national guideline on the management of vulval conditions. International Journal of Std & Aids. 2015 Aug;26(9):611-24.