REVIEW ARTICLE

Interface of Female Sexual Dysfunction, Women's Mental Health, and Psychiatry

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Abstract

Literature highlights that globally, female sexual dysfunction (FSD) is highly prevalent and has relevant interface with psychiatric disorders and women's mental health. It is described to have complex biopsychosocial etiopathogenesis. Psychiatric disorders such as mood disorders, schizophrenia, substance use disorders, anxiety disorders, eating disorders, and personality disorders in women are described to have high comorbidity with FSD. Certain medical conditions have also been linked to FSD. Neurobiological and genetic studies have highlighted novel mechanisms for FSD. The clinical assessment of FSD needs detailed evaluation and special diagnostic and interview techniques. Management of FSD poses unique challenges with currently limited evidence base for psychopharmacological and psychotherapy management.

Keywords: Female sexual dysfunction, Psychiatric disorders, Women's mental health.

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Introduction

Globally, female sexual dysfunction (FSD) has emerged as an important problem that needs to be addressed for enhanced clinical care.[1] Decreased desire for sexuality has been reported as the most common complaint among women experiencing sexual dysfunction.[2] Studies have found that up to 43% of women can be affected with FSD.[3] Some studies highlight that the prevalence can vary from 20% to 50% with various factors such as data collection instruments, cutoffs use, cultural factors, diverse definitions, etc., affecting the overall reported prevalence in literature.[4]

Definition

Female sexual dysfunction can be defined as a disorder of sexual desire, arousal, or orgasm, and/or sexual pain, which can lead to personal distress as well as impact the quality of life and personal relationships.[5]

Classification

There is no separate category of FSD in the ICD 10, and it describes sexual dysfunction in the broader F52 category with heading of sexual dysfunction not caused by organic condition. There is description of lack or loss of desire, sexual aversion and lack of sexual enjoyment, failure of genital response, orgasmic dysfunction, nonorganic vaginismus and nonorganic dyspareunia, and excessive sexual desire.[6] DSM-5 mentions female sexual interest/arousal disorder, female orgasmic disorder, and genitopelvic pain/penetration disorder as subtypes of FSD.[7]

Neurobiology and Genetics

Female sexual dysfunction is considered to be very complex etiopathologically and no single cause can be pinpoint attributed to the causation with absolute certainty.[8] Neurobiological studies describe that hypoactive sexual desire disorder can have an association with fronto-limbic-parietal dysfunction with problems in neurocircuitry of sexual desire especially at the brain neuronal network and the self-referential brain network.[9] Neurogenetics studies in FSD highlight that THNSL2 and SLC6A19, which have been linked to weight and adiposity, might represent novel candidates for sexual problems in women and an interesting association of a shared genetic common component between anxiety sensitivity and FSD.[10] The putative role of the exon 3 repeat region, and the C-521T and C-616G promoter region SNPs and a consistent role for dopamine specifically DRD4 receptor gene expression and protein concentrations at the neuroreceptor-based genetics has been described in literature.[11]

FSD in Youth and Elderly

There have been studies highlighting the role of hormones, menopause, ageing, metabolic factors, and psychosocial stressors modulating FSD in elderly.[12] Contrary to the popular belief, FSD is even affecting young women especially with confounding factors of severity of psychopathology, use of certain psychiatric medications, lower medication adherence, and negative perceived experiences related to sexuality[13] Women above 40 years of age have described more problems with sexuality especially in clinic-based studies.[14] Sexual functioning-related changes with the ageing process in women were more described to be in the desire and arousal domain in certain literature.[15]

Women's Mental Health, Psychosocial factors, and FSD

There has been a role of cultural factors, stigma, psychosocial factors, gender inequality, beliefs, and taboos, which can lead

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to underexpression of sexual problems in women as well as underrecognition and undertreatment.[16] Stressors in relationship, marriage, sexual victimization, emotional abuse, violence, childhood sexual abuse, and trauma in the past and ongoing trauma have been found to have correlations with FSD.[17–19]

Psychiatric Disorders and FSD

Depression and FSD

Certain studies have found very high prevalence of FSD with depression as high as 90% regardless of the type and severity of depression. Depression associated with medical comorbidities further enhances problems with sexual functioning in women.[20]

Substance Use and FSD

Studies have reported high prevalence of 34.2% in patients who take substances, and severe nicotine dependence has been described to increase the chances of having sexual dysfunction by 2.72-fold in women.[21] Literature recognizes that women with mood, anxiety, and substance dependence have elevated scores on problems with sexual satisfaction even after controlling for confounders. Bipolar disorders and comorbid alcohol and drug dependence reduce sexual satisfaction in women.[22–25]

Schizophrenia and FSD

Studies have highlighted the association of schizophrenia in women and sexual dysfunction in as high as 70% of patients. It was further found that impaired desire was the most common problem reported by all women.[26]

Bipolar Disorders and FSD

Sexual problems have also been studied in women with bipolar disorders and they have been associated with mood, cognitions, and perceptions.[27]

Personality and FSD

The role of personality, negative coping, introversion, not being open to new experiences, and emotional instability has been described in women with FSD.[28]

Obsessive Compulsive Disorder and FSD

Female patients with obsessive compulsive disorder (OCD) also reported sexual avoidance (60.6%) and anorgasmia (24.2%), and literature also describes sexual dysfunction unrelated to pharmacotherapy in patients with OCD.[29]

Anxiety Disorder and FSD

Sexual dysfunction was found to occur in 64% of women with panic disorders.[29] Sexual dysfunction has also been described in women with anxiety disorders related to the cognitive and neurobiological threat of performance anxiety.[30]

Eating Disorders and FSD

Eating disorders have also been linked to problems with sexual functioning in women.[31]

Drug-related Sexual Dysfunction

Certain drugs can affect sexual function through multiple pathways. Drugs that affect the central serotonin, dopamine, and/or prolactin signaling pathways have been putated to play an important role.[32] Literature highlights that a significant percentage of women taking medications report varied levels of problems in sexual functioning.[33] Postsynaptic dopamine antagonism, prolactin elevation, and α1-receptor blockade may have a role in antipsychotic-induced sexual dysfunction.[34] Psychotropic drugs use can cause associated sexual dysfunction and these can affect compliance and adherence.[35] However, certain literature highlights that female gender along with depression can increase the association of FSD regardless of the type of drug use with putative role of cognitions at the neurobiological level.[36–38]

Multiple FSD

Literature has consistently highlighted that problems in desire or arousal are most common; however, emerging literature highlights that many women in significant numbers experience multiple sexual dysfunctions.[17]

Medical Conditions and FSD

Certain medical conditions have been linked to FSD including atherosclerosis, peripheral arterial disease and hypertension, posthysterectomy, heart disease, hypertension, diabetes, obesity, smoking, stroke, polycystic ovary syndrome, and metabolic syndrome.[39]

Clinical Assessment in FSD

Detailed history taking in psychiatry and clinical interview forms a very vital part in diagnosis and clinical management of patients experiencing sexual problems. It is suggested that the clinical history should assess more about clinical aspects of FSD such as (a) generalized or situational; (b) lifelong or acquired; (c) the level of distress and impact of FSD on personal life; and (d) the leading etiologies.[24] It is recommended that clinicians explore attachment styles of patients, childhood experiences, abuses, onset of sexual activity, personality, cognitive schemas, infertility concerns, and sexual expectations. Assessment of psychiatric comorbidity should be carried as part of the detailed evaluation.[2] The role of relationships, marital life, familial, work-related stressors, negative coping, medical comorbidity, existing medications, and substance use history must also be explored. Laboratory assessments for appropriate medical comorbidity known to be associated in FSD based on age and individual medical history can include complete blood count, metabolic workup, screening for diabetes, dyslipidemia, thyroid dysfunction, and nutritional deficiencies, which may be done based on reviewing available literature and the clinical profile of the patient. Certain literature highlights need for endocrinological and gynecological liaison workup in certain cases and need for hormonal and metabolic profile assessment as indicated on an individual case-to-case basis. The International Consultation on Sexual Medicine Group has proposed an updated algorithm for diagnostic evaluation of FSD with specific recommendations for sexual history taking and diagnostic evaluation. It also recommends the use of standardized scales, checklists, and validated questionnaires in routine clinical care.[40] It was also found that low sexual desire was more specifically associated with levels of free testosterone and androstenedione, but FSD in general was not associated with androgen levels.[41]

Pharmacotherapy

The hormone therapy, including estrogens, testosterone, tibolone, and dehydroepiandrosterone, has been tried in certain studies

of postmenopausal women, which have discussed the potential use of on-demand combined hormonal (testosterone) and nonhormonal (buspirone or sildenafil) treatments to address possible neurophysiological profiles of women.[42] Flibanserin, a centrally acting medication targeting the serotonin, dopamine, and norepinephrine systems, has received FDA approval for low sexual desire in women.[2] There is lack of randomized clinical trials assessing the effects of switching to currently available antidepressant agents with lower rates of adverse sexual effects, the role of psychological or mechanical interventions, or of techniques such as drug holidays. The addition of bupropion at higher doses has been shown to be useful for women experiencing selective serotonin reuptake inhibitors (SSRI)-related sexual dysfunction.[43] Sildenafil has been studied in treatment of antipsychotic-induced sexual dysfunction in men with schizophrenia but has not been studied in women with FSD as per higher levels of evidence. Further well-designed randomized control trials addressing these critical psychopharmacological aspects are needed.[35] Treatment of adverse sexual effects can be pharmacological (dose reduction, drug discontinuation or switching, augmentation, or using medications with lower adverse effect profiles).[33] There is not adequate evidence to support the use of oxytocin or progesterone for FSD. There is some literature that suggests that treating hyperprolactinemia might be helpful in reducing FSD.[39]

Psychotherapy

Literature highlights that certain psychotherapies such as behavior therapy, Master and Johnson therapy, Jacobson progressive muscle relaxation, cognitive behavior therapy (CBT), psychoeducational therapies, exercise, and stimulation-based techniques have been tried and found to be useful in varied levels of evidence.[33]

Implications

Biopsychosocial frameworks of treatment with holistic focus on medical, psychiatric, and psychosocial factors need to be considered for enhanced clinical care of patients with FSD.[44] Literature recommends that medical professionals must be well-trained and sensitive to women suffering from FSD and be aware of diverse intersections with psychiatric disorders in women.[45]

Conclusion

Female sexual dysfunction is an arena that intersects with psychiatry and women mental health and it still remains high in occurrence yet underrecognized and undertreated. Training and creating additional awareness in the domain of FSD and its intersection with psychiatric disorders is recommended.[46]

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