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Female Sexual Dysfunction—Medical and Psychological Treatments, Committee 14

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ABSTRACT

Introduction: Since the millennium we have witnessed significant strides in the science and treatment of female sexual dysfunction (FSD). This forward progress has included (i) the development of new theoretical models to describe healthy and dysfunctional sexual responses in women; (ii) alternative classification strategies of female sexual disorders; (iii) major advances in brain, hormonal, psychological, and interpersonal research focusing on etiologic factors and treatment approaches; (iv) strong and effective public advocacy for FSD; and (v) greater educational awareness of the impact of FSD on the woman and her partner.

Aims: To review the literature and describe the best practices for assessing and treating women with hypoactive sexual desire disorder, female sexual arousal disorder, and female orgasmic disorders.

Methods: The committee undertook a comprehensive review of the literature and discussion among themselves to determine the best assessment and treatment methods.

Results: Using a biopsychosocial lens, the committee presents recommendations (with levels of evidence) for assessment and treatment of hypoactive sexual desire disorder, female sexual arousal disorder, and female orgasmic disorders.

Conclusion: The numerous significant strides in FSD that have occurred since the previous International Consultation of Sexual Medicine publications are reviewed in this article. Although evidence supports an integrated biopsychosocial approach to assessment and treatment of these disorders, the biological and psychological factors are artificially separated for review purposes. We recognize that best outcomes are achieved when all relevant factors are identified and addressed by the clinician and patient working together in concert (the sum is greater than the whole of its parts). **Kingsberg SA, Althof S, Simon JA, et al. Female Sexual Dysfunction—Medical and Psychological Treatments, Committee 14. J Sex Med 2017;14:1463–1491.**

Key Words: Female Sexual Dysfunction; Hypoactive Sexual Desire Disorder; Female Sexual Arousal Disorder; Female Orgasmic Dysfunction; Persistent Genital Arousal Disorder

INTRODUCTION

Since the millennium we have witnessed significant strides in the science and treatment of female sexual dysfunction (FSD). This forward progress has included (i) the development of new theoretical models specifically for FSD[1]; (ii) alternative classification strategies of female sexual disorders[2,3]; (iii) major advances in brain, hormonal, psychological, and interpersonal research[4–6]; (iv) strong and effective public advocacy for FSD; and (v) greater educational awareness of the impact of FSD on the woman and her partner.[6,7] This report focuses on the distressing complaints of hypoactive sexual desire, impaired arousal, and orgasmic problems. The pain dysfunctions renamed in the *Diagnostic and Statistical Manual of Mental Disorders, 5th Edition* (DSM-5) as *genito-pelvic pain/penetration disorders* are reviewed in a separate publication.

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FSD is best viewed through the lens of the biopsychosocial model.[8] This is an integrative and ever-changing model reflecting fluctuations in a woman's health status, neurochemical balance, psychological issues, interpersonal concerns, and sociocultural factors. In writing this report, we chose to artificially disentangle what is the more appropriately integrated biopsychosocial approach to treatment by presenting the biological, psychological, interpersonal, and sociocultural aspects of each dysfunction separately.

In addition, the committee chose to use the *Diagnostic and Statistical Manual of Mental Disorders, 4th Edition, Text Revision* (DSM-IV-TR)[9] classifications of female sexual disorders instead of those from the *DSM-5*.[10] This is consistent with the recommendations of the International Consultation of Sexual Medicine (ICSM) Committee on Definitions[11] and a recent article on nomenclature by the International Society for the Study of Women's Sexual Health.[2] By separating desire and arousal, it is easier to characterize the assessment and treatment of each dysfunction, rather than combining them as seen in the new and controversial diagnosis of female sexual interest/arousal disorder (FSIAD).[10] We acknowledge that there is often significant overlap and comorbidity among all DSM-IV-TR diagnoses. However, treatment is typically focused on the primary disorder identified by the woman. For example, if she presents with hypoactive sexual desire disorder (HSDD) and reports difficulty reaching orgasm, the clinician and patient would determine whether the low desire is causing the anorgasmia or whether the anorgasmia is caused by the low desire.

As sexual medicine evolves, no trend is clearer than that toward a more unified understanding of the pathophysiology and treatment effects from various forms and approaches to therapy. The unification of the biological and the psychosocial should be the essential goal. The innate ability to change brain functions and associated anatomy, whether cognitive and/or behavioral, could be uniquely human. Even among primates, humans stand out in their extraordinary neuroplasticity such that the development of neural circuits that underlie behavior can be shaped by the environmental, social, and cultural context more intensively in humans, thus providing an anatomic basis for behavioral and cognitive evolution.[12,13] Examples demonstrate that psychological (eg, mindfulness[14]) and pharmacologic approaches[4,15] confer benefits as seen in non-invasive neuroimaging as a correlate of neuroplasticity. Further, such imaging can actually predict response to therapy.[13]

After carefully reviewing peer-reviewed publications on the psychological and pharmacologic treatments for HSDD, female sexual arousal disorder (FSAD), and female orgasmic disorder (FOD), the committee crafted Table 1, which presents a summary of levels of evidence for major treatment interventions. We hope this will guide the clinician to choose appropriate treatments for the patient. Some treatment interventions could not be given a level of evidence because the studies used small cohorts and/or there was insufficient or conflicting evidence.

Table 1. Evaluation of treatment interventions for HSDD, FSAD, and FOD

Type of intervention	Level of evidence
Psychological interventions for HSDD	
Sex therapy (sensate focus)	2*
CBT	2*
Mindfulness + CBT	2*
Pharmacologic interventions for HSDD	
Flibanserin	1
Bremelanotide	1
Testosterone therapy	1
Bupropion	2
Buspirone	2
Lybrido/Lybridos	2
Psychological interventions for FSAD	
Mindfulness + CBT	2*
Pharmacologic interventions for FSAD	
Tibolone	2
Bupropion	2†
Testosterone therapy	1
PDE5i in well-established medical conditions interfering with genital neurovascular substrates	2
Psychological interventions for FOD	
Directed masturbation	2*

CBT = cognitive behavioral therapy; FOD = female orgasmic disorder; FSAD = female sexual arousal disorder; HSDD = hypoactive sexual desire disorder; PDE5i = phosphodiesterase type 5 inhibitor.
*It is unclear whether the same criteria for levels of evidence should be applied to psychological and pharmacological studies.
†Unable to confer levels of evidence because of small cohorts, inconsistent and weak evidence for bibliotherapy alone, L-arginine plus yohimbine, alprostadil, phentolamine, apomorphine, Zestra, and the coital alignment technique.

In addition, we recognize that it is somewhat problematic and controversial to use the same rating system to grade psychological and pharmacologic studies given issues of sample size, randomization of treatments, treatment manuals, placebo control, and duration of follow-up, but this issue is best left for future discussion.[16] Based on specific criteria, effective psychological treatments meeting these criteria were deemed established treatments or probably efficacious treatments.[17]

HYPOACTIVE SEXUAL DESIRE DISORDER—PSYCHOSOCIAL APPROACHES

Overview of Assessment

The assessment of women's sexual function, including loss of sexual desire, should include a comprehensive clinical interview, the objectives of which are to identify the etiology of the woman's complaints and dysfunction, determine the predisposing, precipitating, and maintaining factors, determine her level of distress, and ascertain a clinical diagnosis. Although there is often