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Female Orgasmic Disorder



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of delayed or absent orgasm for a minimum of 6 months with accompanied distress. In this entry, we provide an overview of the diagnostic criteria and prevalence rates of FOD, the psychological and physiological factors associated with the disorder, and the available treatments.

Synonyms

[Anorgasmia](#); [Orgasm dysfunction](#); [Orgasmic concerns](#); [Orgasmic difficulties](#)

Definition

Sometimes referred to as “anorgasmia,” female orgasmic disorder (FOD) is defined in the *Diagnostic and Statistical Manual of Mental Disorders-V (DSM-5)* as the reduced intensity, delay, infrequency, and/or absence of orgasm in women (American Psychiatric Association, 2013).

Introduction

Orgasm is a sensation of intense pleasure that resolves sexually induced vasocongestion and induces a sense of well-being. Many women report difficulties achieving orgasm, with such concerns becoming clinically diagnosable as Female Orgasmic Disorder (FOD) in the context

Overview of Female Orgasmic Disorder

To meet diagnostic criteria for FOD, women must experience present and persistent symptoms for at least 6 months and report that symptoms cause clinically significant distress. The *DSM-5* includes several subtype designations for FOD including lifelong vs. acquired and generalized vs. situational. The lifelong specifier refers to the consistent presence of anorgasmia since the point at which the individual became sexually active, while acquired FOD refers to orgasm concerns that arise after a relatively normal period of sexual function. Situational FOD is limited to certain situations or sexual contexts, whereas generalized FOD occurs across contexts. FOD is further specified as being mild, moderate, or severe in accordance with the patient’s distress levels.

There is wide variability in the definition of female orgasm, with up to 25 distinct definitions documented throughout the literature (Mah & Binik, 2001). The most accepted conceptualization was developed by the World Health Organization, whose female orgasm committee defined the phenomenon as:

...a variable, transient peak sensation of intense pleasure, creating an altered state of consciousness, usually accompanied by involuntary, rhythmic contractions of the pelvic, striated circumvaginal musculature often with concomitant uterine and anal contractions and myotonia that resolves the sexually-induced vasocongestion (sometimes only partially), usually with an induction of well-being and contentment. (Meston et al., 2004a)

Female orgasm most commonly occurs in response to extended stimulation in certain genital and nongenital areas of female anatomy (e.g., the clitoris, vagina, breasts, nipples). In the absence of physical stimulation, orgasm may occur in response to sexual fantasy and/or imagery and may also occur during sleep. While female orgasms are not observed to occur without physical or psychological stimulation, some psychotropic drugs may induce spontaneous orgasms in women.

Epidemiology

Orgasmic concerns are the second most common form of female sexual dysfunction, closely following sexual desire concerns (Lewis et al., 2010; Mitchell et al., 2016). Precise prevalence rates for FOD are difficult to determine given methodological differences in research reports and changing diagnostic criteria, and by the fact that only a small percentage of women are distressed by their inability to attain orgasm and, thus, don't meet clinical diagnostic criteria. In a review of 11 different epidemiological studies, the lowest rate of FOD was reported at 3.5% (using DSM-III criteria); the highest was 34% (when women were asked whether or not they had difficulties experiencing orgasm) (Graham, 2010). More recent research accounting for *DSM-5* criteria finds that approximately 16.3% of women report difficulties with orgasm over a one-year time period, while only 1.9% meet diagnostic criteria (Mitchell et al., 2016).

Rates of FOD vary across a range of demographic factors. Young women (18–24 years) have lower rates of orgasm in both partnered and solo sexual contexts, likely as a function of having less sexual experience (Mitchell et al., 2016). Women with lower levels of education also seem to have more difficulties achieving orgasm.

Indeed, 42% of women with a high school diploma report “always or usually” achieving orgasm during masturbation, as compared to 87% of women with an advanced degree (Laumann et al., 1994). This corresponds to a larger inverse relationship between education levels and female sexual dysfunction more generally (Jaafarpour et al., 2013). It is hypothesized that education may provide women with exposure to information related to sexuality, which may in turn increase the likelihood of engagement in behaviors that maximize personal pleasure.

Comorbidities

Among women who are diagnosed with FOD, there are extremely high rates of comorbidity with other forms of sexual dysfunction. Up to 31% of women with FOD also meet criteria for an arousal disorder diagnosis, and up to 50% report difficulties with lubrication, desire, or pain (Laan et al., 2013). Women with FOD also have high rates of comorbidity with other forms of psychopathology, including anxiety (27%) and depression (53%) (Laan et al., 2013). While little research has examined the prognosis of women diagnosed with FOD, there is some evidence that situational and acquired FOD may resolve spontaneously, whereas lifelong and generalized FOD may be unlikely to remit without treatment.

Factors Associated with Women's Orgasm and FOD

Female orgasm is facilitated by a complex array of psychological and physiological processes, disruptions to any of which may affect a woman's ability to achieve orgasm.

Psychological Factors

Common psychological factors associated with FOD include sexual guilt, anxiety, depression, relationship issues, and cultural expectations of orgasm (for review, see Meston et al., 2004a). Sexual guilt often arises as a function of religiosity and intergenerational socialization, specifically with regards to the morality of sexual behavior outside of a marital and/or reproductive

context. Sexual guilt can have downstream effects on orgasmic abilities via increased sexual discomfort, more distraction from pleasurable sensations, and the occurrence of distressing thoughts during sexual activity. Indeed, a substantially higher proportion (79%) of women with no religious affiliation endorsed being orgasmic during masturbation as compared to groups of religious women (53–67%) (Laumann et al., 1994; Baćak & Štulhofer, 2011). Conversely, women with less sexual guilt are more able to achieve orgasm given their increased likelihood of initiating and actively participating in sexual activity (Davidson & Moore, 1994). Women who initiate sex more frequently and/or are more active participants during sexual activity report more frequent orgasms. This is most likely because their active role allows for finding sexual positions that facilitate a greater level of stimulation and pleasure.

There is a close association between anxiety disorders and the presence of orgasmic difficulties, perhaps as a function of physiological hyperarousal and challenges with relaxation. Women with anxiety are more likely to attend to non-sexual concerns during sexual activity. This pattern of inattention to the present moment may distract a woman from sexual sensations, thereby impeding orgasm (van den Hout & Barlow, 2000). These women may also experience anxiety regarding their own sexual performance, similarly inhibiting their focus on experiences of sexual pleasure.

Women with depression are also more likely to present with FOD than women without depression due to a variety of cognitive mechanisms. More specifically, women with depression are predisposed to ruminate on perceived negative events, including negative aspects of their sexual experience. They may also be more likely to struggle with redirecting their attention away from these negative appraisals and toward the present moment. Orgasmic capabilities may be impacted by a pattern of negative expectations relative to future events, including the expectation that orgasm is not possible or probable (Laan et al., 2013).

Related, even outside of the context of depressive or anxious psychopathology, cognitive

mechanisms play a large role in the facilitation or inhibition of orgasm. While an ability to consistently attend to erotic thoughts seems to increase orgasmic capabilities, a pattern of cognitive distraction during sexual activity seems to increase risk for FOD. More specifically, women who struggle to achieve orgasms also report more thoughts related to sexual abuse, their partner's lack of affection, and their feelings of failure or disengagement during sexual activity (Cuntim & Nobre, 2011). Additionally, women with orgasmic concerns simultaneously present with increased negative automatic thought content and decreased erotic thought content during sex – a pattern which may increase negative affect and sexual inhibition (Moura, Tavares, & Nobre, 2020).

Women are more likely to have orgasms when in romantic relationships characterized by a high level of relational satisfaction. The mechanism underpinning this association seems to be the presence of effective communication in both sexual and non-sexual domains. Women with anorgasmia are less likely to communicate sexual preferences to their partner and may also be less open to receiving sexual feedback. Because relational concerns often operate as a system, it is important to note that male partners of women with FOD are also more likely to exhibit discomfort when engaging in conversations with their partner focused on sex and sexual problems (Kelly et al., 2006). Importantly, relational satisfaction and orgasm often work as a bidirectional feedback loop, with couples who display higher levels of satisfaction being more likely to engage in intimate acts that may facilitate orgasm, and orgasm facilitating a sense of intimacy and satisfaction (Lentz & Zaikman, 2021).

Finally, it is possible that orgasmic capacity is related to overarching cultural expectations of female pleasure. Societies that place more value on female orgasm also have lower incidences of FOD than societies that discourage sexual pleasure for women (for review, see Meston et al., 2004a). For example, among the Mangaia population of the Cook Islands, women are taught to have orgasms while men who are not able to give their partners multiple orgasms are socially

disparaged. Conversely, other societies, such as the Arapesh of Papua New Guinea, have cultural expectations that women will have no pleasure from sex and that female orgasm does not exist. It is possible that women in societies that actively promote women's sexual pleasure are more likely to learn about what facilitates their ability to have an orgasm. Furthermore, women in such societies may feel more comfortable *admitting* to experiences of orgasm, whereas orgasm rates may be dramatically underreported in cultures that discourage and/or deny female sexual pleasure.

Physiological Factors

Disruptions to normal functioning of the nervous system, endocrine system, or brain may cause orgasmic dysfunction in women. Such disruptions may include disease, injury, or other insults to the sympathetic or parasympathetic nervous system (Heiman, 2002), which are both implicated in female sexual arousal and in turn, female orgasm. With regard to the endocrine system, orgasm may be adversely impacted by impairments to epinephrine or norepinephrine levels, which typically peak during orgasm (e.g., Exton et al., 2000). Increased oxytocin levels are also associated with a subjective increase in orgasmic intensity among women via stimulation of smooth muscle contractions (for review, see Meston & Frohlich, 2000). To that end, orgasmic dysfunction may arise from damage to the paraventricular nucleus of the hypothalamus – the projecting neurons of which secrete oxytocin (McKenna, 1999).

Large epidemiological studies in the United States demonstrate that a wide array of medical diagnoses, such as Parkinson's disease, kidney disease, fibromyalgia, sickle-cell anemia, hypothalamus-pituitary disorders, vascular disease, epilepsy, and multiple sclerosis have a deleterious impact on women's orgasmic capabilities (e.g., Celikel et al., 2008; Khan et al., 2011; Harden, 2005). Damage to the sacral reflex arc of the spinal cord may also impede a woman's ability to orgasm due to interference with the vagus nerve, which has been shown to connect the uterus and cervix to the brain (Whipple et al., 1996). Indeed, the first studies to use brain imaging during women's orgasm revealed significant

activation of the nucleus of the solitary tract, which receives sensory input from the vagus nerve, as well as of somatosensory and motor cortices, thalamus, and sensory areas of the spinal cord and medulla (Komisaruk et al., 2004).

Women's orgasm is sometimes delayed or altogether inhibited by a range of psychotherapeutic drugs. Serotonergic drugs, such as selective serotonin reuptake inhibitors (SSRIs), impede orgasm in about one-third of female users (Stimmel & Gutierrez, 2006). The severity of sexual side effects experienced may vary as a function of the particular serotonin receptor subtype activated by the SSRI prescribed. Drugs that inhibit serotonin activity at the 5-HT₂ cause fewer sexual side effects for women (for review, see Meston et al., 2004b). A majority (78%) of nPGi axons that project to the lumbosacral spinal cord contain serotonin (5-HT), suggesting that the lumbosacral cord may be one site at which SSRIs act to inhibit orgasm (Marson & McKenna, 1992). Conversely, women's orgasmic capabilities are diminished by drugs that decrease dopaminergic activity, such as antipsychotics. Antipsychotics may impede orgasm directly as a result of blockages to dopamine receptors in areas crucial for sexual functioning, or indirectly due to sedation, extrapyramidal side effects, or elevated prolactin levels.

An increasing number of women attribute their orgasm difficulties to the structure of their genitalia and consequently seek out genital plastic surgeries such as labiaplasty (reduction of the labia minora or labia majora), vaginoplasty (tightening of the vaginal canal), hymenoplasty (reconstruction of the hymen), perineoplasty (reshaping or tightening of the perineum), and G-spot augmentation. Although there is some evidence that these surgeries lead to increased sexual satisfaction (e.g., Goodman et al., 2010), these studies failed to use standardized measures that formally assess for sexual dysfunction and did not include control groups. As such, the American College of Obstetricians and Gynecologists and the Society of Obstetricians and Gynecologists of Canada do not endorse genital plastic surgery.

Treatment

The treatment of FOD has been approached from psychoanalytic, cognitive-behavioral, pharmacological, and systems theory perspectives, but a large body of empirical outcome research is available only for cognitive behavioral and, to a lesser extent, pharmacological approaches. The nebulous manner in which studies often define orgasmic dysfunction poses challenges for evaluating treatment efficacy. While some studies use clinician interviews to determine whether women meet criteria for lifelong or acquired anorgasmia, others rely solely on participant self-reports of orgasmic difficulty.

Psychological Treatments

Directed masturbation (DM), the most effective treatment for FOD to date, is successfully delivered in many modalities including individual, group, and couple's therapy, as well as bibliotherapy. Using cognitive behavioral therapy techniques, women are educated about their bodies and the sensations of manual self-stimulation. In the first step of directed masturbation, the woman views diagrams of female genital anatomy and examines her own naked body using a mirror. She is then instructed to touch her genitals and locate areas that induce pleasurable sensations. Subsequently, the woman focuses on stimulating these pleasurable areas with increased intensity and duration until orgasm is achieved. Topical lubricants, erotic films, and vibrators may be introduced to facilitate pleasure during these exercises. After the woman is able to attain orgasm on her own, her partner may participate in these sessions to learn how to perform effective stimulation. By introducing her partner into these sessions, the woman also becomes desensitized to experiencing arousal and orgasm in his or her presence.

Out of eight randomized, controlled trials comparing directed masturbation to no treatment, only one study did not demonstrate efficacy (ter Kuile & Reissing, 2014). Directed masturbation is very effective at treating generalized FOD for a few proposed reasons. Firstly, the solo setting in which

directed masturbation initially takes place mitigates anxiety associated with the presence of a partner. Additionally, the woman takes control of her sexual pleasure by providing it to herself in precisely the way she desires it.

Hurlbert and Apt (1995) compared the effectiveness of DM with the coital alignment technique in 36 women with acquired anorgasmia. To enact coital alignment, the woman assumes the supine position and the man positions himself up and forward on the woman. Thirty-seven percent of the women receiving instructions on the coital alignment technique versus 18% of those receiving DM reported substantial improvements (>50% increase) in orgasmic ability during intercourse after four 30 min sessions. The effectiveness of this technique is likely due to the maximization of clitoral contact, and possibly paraurethral stimulation.

Although directed masturbation is effective for women with situational FOD who experience discomfort touching their genitals, most women with situational FOD face difficulty attaining orgasm with their partner and are thus treated most effectively with interventions that target couple's issues of sexual communication, sexual skills, comfort, and trust. Sexual problems in a partner (e.g., erectile failure) may lead to FOD in some instances (Brody, 2017). As such, it is important to ask women about the sexual health of their partner.

If the etiology of FOD is associated with anxiety regarding sex, anxiety reduction techniques such as sensate focus and systematic desensitization may be useful, though they are not considered to be empirically validated treatments for FOD. Deep relaxation exercises involved in systematic desensitization allow the woman to replace fear responses with relaxation responses. The female client and her therapist create a succession of anxiety-provoking sexual stimuli towards which the client is tasked with alternating a fear response and a relaxation response. After the client can imagine each threatening situation without anxiety, she engages in each previously threatening situation in real life. Alternatively, sensate focus is a couple's treatment that targets awareness of and communication about sexually sensitive areas

for each partner. First, partners explore non-sexual areas of each other's bodies while actively refraining from engaging in any sexual activity. Next, the couple may touch sexual regions of each other's bodies without the expectation for sexual intercourse to ensue. Based on comparison-controlled studies, using sensate focus as an adjunct to directed masturbation is more effective at treating FOD than directed masturbation on its own (Heiman and Meston, 1997).

Kegel posited that engaging in strengthening exercises of the pubococcygeus muscle could improve orgasm by increasing vascularity to the genitals (1952). Treatment comparison studies have not historically found differences in orgasmic ability between women who used Kegel exercises versus those who did not (Chambless et al., 1984); however, emerging evidence suggests that such exercises may improve self-reported orgasm scores (Nazarpour et al., 2017). To the extent that Kegel exercise may enhance arousal and/or help the woman become more comfortable with her genitals, they may enhance orgasm capability.

Pharmacological Treatments

Hormonal therapies may be indicated in postmenopausal women experiencing difficulties with orgasm. Numerous studies have shown androgen treatments may improve FOD symptoms in postmenopausal women with low testosterone; however, a study focused on androgen treatment of FOD specifically has yet to be conducted. A 300 mg patch of testosterone demonstrated improvements in FOD symptoms among women who previously underwent bilateral salpingo-oophorectomy and hysterectomy (Braunstein et al., 2005), and 10 mg of testosterone gel similarly improved women's orgasmic function (Davis et al., 2008). Additionally, the orgasmic capabilities of late menopausal women were restored by tibolone, a medication that mimics estrogen and progesterone activity (Kamenov et al., 2007).

Finally, the EROS clitoral therapy device is the only FDA-approved device for the treatment of FOD. Using vacuum-suction, the device increases blood flow into the clitoris, allowing women to reach the level of physiological arousal necessary

to achieve orgasm. When used three times a week for 3–5 min, the device significantly improved women's orgasmic function (Wilson et al., 2001).

Conclusion

Female orgasmic disorder is highly prevalent and comorbid with other forms of sexual dysfunction and psychopathology. While the nature of FOD is multifactorial, it is thought that orgasmic difficulties may arise as a function of sexual guilt, anxious or depressive cognitive styles, relationship issues, and/or overarching cultural attitudes related to female pleasure and orgasm. Additionally, many physiological correlates have been identified, with impairments to the nervous system, endocrine system, and brain closely linked to the onset of FOD. Although directed masturbation is the most effective treatment available for the disorder, additional research is needed to explore the predictors of treatment response with the goal of facilitating more effective, personalized treatment matching for women with orgasmic concerns.

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