

Disorders of Orgasm in Women

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Summary of Committee. For the complete report please refer to *Sexual Medicine: Sexual Dysfunctions in Men and Women*, edited by T.F. Lue, R. Basson, R. Rosen, F. Giuliano, S. Khoury, F. Montorsi, Health Publications, Paris 2004.

ABSTRACT

Introduction. Orgasm is a sensation of intense pleasure creating an altered consciousness state accompanied by pelvic striated circumvaginal musculature and uterine/anal contractions and myotonia that resolves sexually-induced vasocongestion and induces well-being/contentment. In 1,749 randomly-sampled U.S. women, 24% reported an orgasmic dysfunction.

Aim. To provide recommendations/guidelines concerning state-of-the-art knowledge for management of orgasmic disorders in women.

Methods. An International Consultation in collaboration with the major urology and sexual medicine associations assembled over 200 multidisciplinary experts from 60 countries into 17 committees. Committee members established specific objectives and scopes for various male and female sexual medicine topics. The recommendations concerning state-of-the-art knowledge in the respective sexual medicine topic represent the opinion of experts from five continents developed in a process over a 2-year period. Concerning the Disorders of Orgasm in Women Committee, there were four experts from two countries.

Main Outcome Measure. Expert opinion was based on grading of evidence-based medical literature, widespread internal committee discussion, public presentation and debate.

Results. Female Orgasmic Disorder, the second most frequently reported women's sexual problem is considered to be the persistent or recurrent delay in, or absence of, orgasm following a normal sexual excitement phase that causes marked distress or interpersonal difficulty (DSM-IV). Empirical treatment outcome research is available for cognitive behavioral and pharmacological approaches. Cognitive-behavioral therapy for anorgasmia promotes attitude and sexually-relevant thought changes and anxiety reduction using behavioral exercises such as directed masturbation, sensate focus, and systematic desensitization treatments as well as sex education, communication skills training, and Kegel exercises. To date there are no pharmacological agents trials (i.e., bupropion, granisetron, and sildenafil) proven to be beneficial beyond placebo in enhancing orgasmic function in women diagnosed with Female Orgasmic Disorder.

Conclusions. More research is needed in understanding management of women with orgasmic dysfunction.

Key Words. Women's Orgasm; Cognitive Therapy; Directed Masturbation

An orgasm in the human female is a variable, transient peak sensation of intense pleasure creating an altered state of consciousness usually with an initiation 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) and myotonia usually with an induction of well-being and contentment. Women's orgasms can be induced by erotic stimulation of a variety of genital and nongenital sites.

The clitoris and vagina are the most usual sites of stimulation, but stimulation of the periurethral glands, breast/nipple or mons, mental-imagery or fantasy or hypnosis have also been reported to induce orgasm [1-4]. Orgasms have been noted to occur during sleep in the able-bodied, hence consciousness is not an absolute requirement [5-7]. Rare cases of so-called true "spontaneous orgasm" have been described in the psychiatric literature where no obvious sexual stimulus can be ascertained [8].

As of yet, no definitive explanations for what triggers orgasm have emerged. The first studies of brain imaging (positron emission tomography, PET, coupled with MRI) during orgasm in women have recently been reported [9,10]. Increased activation at orgasm, compared to pre-orgasm arousal, was noted in the following brain regions: paraventricular nucleus (PVN) of the hypothalamus, periaqueductal gray area of the midbrain, hippocampus, and cerebellum [10]. Further studies that compare brain areas activated by orgasm with those activated during sexual arousal without orgasm are needed to assess whether there are specific brain regions responsible for triggering orgasm in women.

The psychosocial factors most commonly discussed in relation to female orgasmic ability include age, education, social class, religion, personality, and relationship issues. There are no consistent, empirical findings that psychosocial factors alone differentiate orgasmic from anorgasmic women. Research that systematically examines these factors among women who are more carefully diagnosed as either meeting or not meeting clinical criteria for Female Orgasmic Disorder is needed.

Findings from the National Social and Health Life Survey suggest that orgasmic problems are the second most frequently reported sexual problems in women [11]. In this random sample of 1,749 U.S. women, 24% reported a lack of orgasm in the past year for at least several months or more. This percentage is comparable to clinic-based data. A precise estimate of the incidence of orgasmic disorder in women is, however, difficult to determine because few well-controlled studies have been conducted, and definitions of orgasmic disorder vary widely between studies depending on the diagnostic criteria used. The DSM-IV-TR defines Female Orgasmic Disorder using the following diagnostic criteria: Persistent or recurrent delay in, or absence of, orgasm following a normal sexual excitement phase that causes marked dis-

stress or interpersonal difficulty [12]. Women exhibit wide variability in the type or intensity of stimulation that triggers orgasm. The diagnosis of Female Orgasmic Disorder should be based on the clinician's judgment that the woman's orgasmic capacity is less than would be reasonable for her age, sexual experience, and the adequacy of sexual stimulation she receives. Studies of women diagnosed with Female Orgasmic Disorder note a high percentage are also diagnosed with Female Sexual Arousal Disorder, suggesting that the DSM-IV-TR criterion of absence of orgasm follows a "normal sexual excitement" phase is often ignored. The DSM-IV-TR uses the terms lifelong versus acquired and generalized versus situational. The International Statistical Classification of Diseases and Related Health Problems (ICD-10) defines Orgasmic dysfunction simply as "Orgasm either does not occur or is markedly delayed." Regarding women who can obtain orgasm during masturbation or during intercourse with manual stimulation but not during intercourse alone, the clinical consensus is that she would not meet criteria for clinical diagnosis.

The treatment of anorgasmia has been approached from psychoanalytic, cognitive-behavioral, pharmacological, and systems theory perspectives but substantial empirical outcome research is available only for cognitive behavioral and, to a lesser degree, pharmacological approaches [13]. Cognitive-behavioral therapy for anorgasmia focuses on promoting changes in attitudes and sexually-relevant thoughts, decreasing anxiety, and increasing orgasmic ability and satisfaction. Behavioral exercises traditionally prescribed to induce these changes include directed masturbation, sensate focus, and systematic desensitization. Sex education, communication skills training, and Kegel exercises are also often included in cognitive-behavioral treatment programs for anorgasmia.

Directed masturbation has been used to effectively treat anorgasmia in a variety of treatment modalities including group, individual, couples therapy, and bibliotherapy. It has been shown to be an empirically valid, efficacious treatment for women diagnosed with lifelong, generalized anorgasmia. For the woman with acquired anorgasmia who is averse to touching her genitals, directed masturbation may be beneficial. If, however, the woman is able to attain orgasm alone through masturbation but not with her partner, issues relating to communication, anxiety reduction, safety, trust, and ensuring the woman is receiving adequate

stimulation either via direct manual stimulation or engaging in intercourse using positions designed to maximize clitoral stimulation (i.e., coital alignment technique) may prove more helpful.

Anxiety can serve as a distraction that disrupts the processing of erotic cues by causing the woman to focus instead on performance related concerns, embarrassment, and/or guilt. As originally conceived by Masters and Johnson, sensate focus is an anxiety reduction technique that involves a step-by-step sequence of body touching exercises, moving from nonsexual to increasingly sexual touching of one another's body [14]. Across studies women have reported decreases in sexual anxiety and occasional increases in frequency of sexual intercourse and sexual satisfaction with systematic desensitization, but substantial improvements in orgasmic ability have not been noted. Similarly, of the few controlled studies that have included sensate focus as a treatment component, none have reported notable increases in orgasmic ability. These findings suggest that, in most cases, anxiety does not appear to play a causal role in anorgasmia and anxiety reduction techniques are best suited for anorgasmic women only when sexual anxiety is coexistent. There is no direct empirical evidence to suggest that sex education, communication skills training, or Kegel exercises alone are effective for treating either primary or secondary anorgasmia. A review of studies suggests they may serve as beneficial adjuncts to therapy.

There have been few placebo-controlled studies examining the effectiveness of pharmacological agents for treating Female Orgasmic Disorder. To date there are no pharmacological agents proven to be beneficial beyond placebo in enhancing orgasmic function in women with diagnosed Female Orgasmic Disorder. Placebo-controlled research is needed to examine the effectiveness of agents with demonstrated success in case series or open-label trials (i.e., bupropion, granisetron, and sildenafil) on orgasmic function in women.

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References

- 1 Levin RJ. Sexual desire and the deconstruction and reconstruction of the human female sexual response model of Masters & Johnson. In: Everaerd W, Laan E, Both S, editors. *Sexual appetite, desire and motivation: Energetics of the sexual system*. Amsterdam: Royal Netherlands Academy of Arts and Sciences; 2001:63-93.
- 2 Masters WH, Johnson V. *Human sexual response*. Boston: Little Brown; 1966.
- 3 Whipple B, Ogden G, Komisaruk BR. Physiological correlates of imagery-induced orgasm in women. *Arch Sex Behav* 1992;21:121-33.
- 4 Levin RJ. The mechanisms of human female sexual arousal. *Ann Rev Sex Res* 1992;3:1-48.
- 5 Kinsey AC, Pomeroy WD, Martin CE, Gebhard PH. *Sexual behavior in the human female*. Philadelphia: WB Saunders Company; 1953:628.
- 6 Fisher C, Cohen HD, Schiavi RC, Davis D, Furman B, Ward K, Edwards A, Cunningham J. Patterns of female sexual arousal during sleep and waking: Vaginal thermo-conductance studies. *Arch Sex Behav* 1983;12:97-122.
- 7 Wells BL. Nocturnal orgasms: Females' perception of a "normal" sexual experience. *J Sex Res* 1983; 22:412-37.
- 8 Polatin P, Douglas DE. Spontaneous orgasm in a case of schizophrenia. *Psychoanal Rev* 1953;40: 17-26.
- 9 Whipple B, Komisaruk BR. Brain (PET) responses to vaginal-cervical self-stimulation in women with complete spinal cord injury: Preliminary findings. *J Sex Marital Ther* 2002;28:79-86.
- 10 Komisaruk BR, Whipple B, Crawford A, Grimes S, Kalnin AJ, Mosier K, Liu WC, Harkness B. Brain activity (fMRI and PET) during orgasm in women, in response to vaginocervical self-stimulation. *Abst Soc Neurosci* 2002;841:17.
- 11 Laumann EO, Gagnon JH, Michael RT, Michaels S. *The social organization of sexuality: Sexual practices in the United States*. Chicago: University of Chicago Press; 1994.
- 12 American Psychiatry Association. *Diagnostic and statistical manual of mental disorders*. DSM-IV, 4th edition. Washington DC: American Psychiatric Association; 1994.
- 13 Heiman JR. Orgasmic disorders in women. In: Leiblum SR, Rosen RC, editors. *Principles and practice of sex therapy*. 3rd edition. New York: Guilford Press; 2000.
- 14 Masters W, Johnson V. *Human sexual inadequacy*. Boston: Little Brown; 1970.