REPORTS

Summary of the Recommendations on Sexual Dysfunctions in Women

Rosemary Basson, MD,* Margaret E. Wierman, MD,† Jacques van Lankveld, PhD,‡ and Lori Brotto, PhD*

*University of British Columbia, Vancouver, BC, Canada; †Div. Endocrinology, Metabolism & Diabetes, University of Colorado Denver, Aurora, CO, USA; ‡Department of Clinical Psychological Science, University of Maastricht, Maastricht, the Netherlands

DOI: 10.1111/j.1743-6109.2009.01617.x

ABSTRACT

Introduction. Women's sexual dysfunction includes reduced interest/incentives for sexual engagement, difficulties with becoming subjectively and/or genitally aroused, difficulties in triggering desire during sexual engagement, orgasm disorder, and sexual pain.
Aim. To update the recommendations published in 2004, from the 2nd International Consultation on Sexual Medicine (ICSM) pertaining to the diagnosis and treatment of women's sexual dysfunctions.
Methods. A third international consultation in collaboration with the major sexual medicine associations assembled over 186 multidisciplinary experts from 33 countries into 25 committees. Twenty one experts from six countries contributed to the Recommendations on Sexual Dysfunctions in Women.
Main Outcome Measure. Expert opinion was based on grading of evidence-based medical literature, widespread internal committee discussion, public presentation, and debate.
Results. A comprehensive assessment of medical, sexual, and psychosocial history is recommended for diagnosis and management. Indications for general and focused pelvic genital examination are identified. Evidence based recommendations for further revisions of definitions for sexual disorders are given. An evidence based approach to management is provided. Extensive references are provided in the full ICSM reports.
Conclusions. There remains a need for more research and scientific reporting on the optimal management of women's sexual dysfunctions including multidisciplinary approaches. **Basson R, Wierman ME, van Lankveld J, and Brotto L. Summary of the recommendations on sexual dysfunctions in women. J Sex Med 2010;7:314–326.**

Key Words. Female Sexual Dysfunction; Definition; Diagnosis and Treatment of Women's Sexual Dysfunction; Desire Disorder; Arousal Disorder; Orgasm Disorder; Sexual Pain Disorder

Introduction

The current conceptualization of women's sexual function emphasizes the responsive component of women's desire. The circular model depicted in Figure 1 explains our current understanding of how desire is triggered during the sexual engagement thereby adding to any initial desire. Research confirms that women provide a variety of reasons and incentives for engaging in sexual activity. Sexually competent stimuli are integral to a sexual response and must always be assessed when considering a diagnosis and formulation of dysfunction. Women's sexual dysfunction includes reduced interest/incentives for sexual engagement, difficulties with becoming subjectively aroused and/or genitally aroused, and difficulties in triggering desire during sexual engagement. Frequently, all of these aspects are involved. Orgasmic disorder denotes sexual experiences consistently associated with high arousal but absence of orgasm. Other dysfunctions include pain and difficulty with attempted or completed intercourse or any attempts at vaginal penetration.

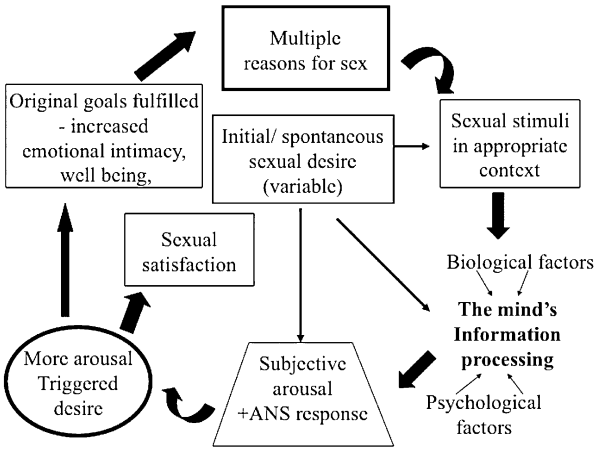

Figure 1 Circular sexual response cycle of overlapping phases may be experienced many times during any one sexual encounter. Desire may or may not be present initially: it is triggered by the arousal to sexual stimuli. The sexual and nonsexual outcomes influence future sexual motivation. Copied with permission from Lippincott Williams & Wilkins from Figure 2 in Basson R. Female sexual response: The role of drugs in the management of sexual dysfunction. Am Coll Obstet Gynecol 2001;98(2):350–2.

Definitions of Sexual Disorder in Women

The available evidence suggests that there are problems with existing definitions of sexual desire, arousal, and orgasmic disorders in women. The proposed definitions that were sponsored by the AUAF in 2003 present alternative criteria for these disorders: currently these are recommended for the clinical setting. Given the upcoming publication of the Diagnostic and Statistical Manual of Mental Disorders (DSM)-V in 2012, it is likely that the current diagnostic criteria for these disorders will change. **Grade B.**

Sexual Desire/Interest Disorder (or Hypoactive Sexual Desire Disorder [HSDD in the DSM-IV-TR])

> There are absent or diminished feelings of sexual interest or desire, absent sexual thoughts or fantasies, and a lack of responsive desire. Motivations (here defined as reasons/incentives) for attempting to become sexually aroused are scarce or absent. The lack of interest is considered to be beyond the normative lessening with lifecycle and relationship duration.

Apparently innate desire (or experienced desire where the stimuli are not evident to the woman), present before sexual engagement begins is sometimes present for women, especially early in relationships and sometimes associated with menstrual cycles. However, this definition of sexual desire disorder argues that its absence does not equate to dysfunction.

Arousal Disorder (or Female Sexual Arousal Disorder [FSAD in the DSM-IV-TR])

Somatically healthy women diagnosed with sexual arousal disorder usually show a normal vasocongestive response in the genitalia in response to erotic sexual stimulation, when tested in a controlled laboratory environment. Thus, it is these women's lack of subjective arousal that is key to their distress, rather than failure of genital congestion.

It is recommended that subtypes of sexual arousal disorder are recognized: subjective sexual arousal disorder, genital sexual arousal disorder, combined genital and subjective arousal disorder, and persistent genital arousal disorder. Of note, it is the woman's self-report of absent or impaired genital congestion and lubrication that is the basis of these definitions, and psychophysiological testing would be necessary to identify any underlying physiological pathology.

Subjective Arousal Disorder

> There is absence of or markedly diminished feelings of sexual arousal (sexual excitement and sexual pleasure) from any type of sexual stimulation. Vaginal lubrication or other signs of physical response still occur.

Genital Sexual Arousal Disorder

> There are complaints of impaired genital sexual arousal. Self-report may include minimal vulvar swelling or vaginal lubrication from any type of sexual stimulation and reduced sexual sensations from caressing genitalia. Subjective sexual excitement still occurs from non-genital sexual stimuli.

A woman diagnosed with the genital subtype of arousal disorder indicates that she can still be subjectively aroused by, for instance, viewing an erotic film, or pleasuring her partner, being kissed, or receiving breast stimulation. She complains of the marked loss of intensity of any genital response including orgasm. Awareness of throbbing/swelling/lubrication is absent or markedly diminished. Moreover, loss of sexual quality of genital sensations despite apparently adequate engorgement can occur and is poorly understood.

Combined Genital and Subjective Arousal Disorder

> "There is absence of or markedly diminished feelings of sexual arousal (sexual excitement and sexual pleasure), from any type of sexual stimulation as well as complaints of absent or impaired genital sexual arousal (vulval swelling, lubrication)."

It is the lack of the subjective excitement from any type of sexual stimulation that distinguishes these women from those with genital arousal disorder.

Persistent Genital Arousal Disorder

> There is spontaneous, intrusive and unwanted genital arousal, e.g., tingling, throbbing, and pulsating, in the absence of sexual interest and desire. Any awareness of subjective arousal is typically but not invariably unpleasant. The arousal is unrelieved by one or more orgasms and the feelings of arousal persist for hours or days.

The disorder is poorly understood but becoming a more frequently recognized syndrome. More research is needed on its prevalence, etiology, and effective treatments.

Women's Orgasmic Disorder (or Female Orgasmic Disorder [FOD in the DSM-IV-TR])

> Despite the self-report of high sexual arousal/excitement, there is either lack of orgasm, markedly diminished intensity of orgasmic sensations or marked delay of orgasm from any kind of stimulation.

Dyspareunia (Dyspareunia in the DSM-IV-TR)

> There is persistent or recurrent pain with attempted or complete vaginal entry and/or penile vaginal intercourse.

It is recommended the experience of women who cannot tolerate full penile entry and the movements of intercourse because of the pain, be included in the definition of dyspareunia. Clearly, it depends on the woman's pain tolerance and her partner's hesitancy or insistence.

Vaginismus (Vaginismus in the DSM-IV-TR)

> There are persistent or recurrent difficulties for the woman to allow vaginal entry of a penis, a finger, and/or object, despite the woman's expressed wish to do so. There is often (phobic) avoidance, involuntary pelvic muscle contraction and anticipation/fear/experience of pain. Structural or other physical abnormalities must be ruled out/addressed.

Recommendations Regarding Further Change to Definitions

Recommendation for HSDD

The currently accepted definition of HSDD in women is highly problematic and the emphasis on sexual fantasies and desire for sexual activity is not applicable to all sexually healthy women. We recommend that desire be regarded as the result of an incentive (sexually competent stimulus) that activates the sexual system where subjectively perceived desire is one of many components. **Grade C.**

Recommendation for FSAD

The focus on "lubrication/swelling response" in the DSM-IV-TR definition of FSAD is highly problematic given that this is rarely the complaint motivating treatment seeking. Moreover, there is minimal, if any, correlation between subjective and genital sexual arousal. Given the importance of "adequate sexual stimuli" for sexual arousal and desire, this should be assessed clinically when evaluating whether or not an arousal or orgasm disorder is present. **Grade C.**

Assessment of Women's Sexual Dysfunction

The framework for assessment of sexual dysfunction is to assess predisposing, precipitating, and maintaining factors. When there is a current sexual relationship (and if appropriate), both partners need to be evaluated to understand the aforementioned factors. A biopsychosocial approach is recommended. Current contextual factors are commonly etiologically important. For longer duration and lifelong sexual dysfunctions, developmental history and past relationships are also commonly etiologically relevant.

Medical and Psychosocial History

A comprehensive medical and psychosocial history is highly recommended for all sexual dysfunctions (Table 1). **Grade C.** Further assessment of the woman is recommended if she discloses a history sexual abuse. This includes assessment of the woman's recovery from the abuse (with or without past therapy): identify any history of major depression, substance use disorders, significant anxiety, self-harm or promiscuity, any inability to trust people, especially those of the same gender as the perpetrator, or an exaggerated need for control or need to please (and inability to say no). When there are concerns about residual abuse-related symptoms, assessment of the sexual dysfunctions per se are deferred temporarily.

When assessing arousal disorders, it is recommended to clarify which component(s) of arousal is absent/problematic. This will allow subtyping of the arousal disorder so as to guide choice of therapy. For assessment of women's arousal and orgasmic concerns it is recommended to assess the following: is there adequate and acceptable stimulation with her partner and/or with masturbation? Is the degree of trust and safety she feels she needs present? Are orgasms wanted but absent and/or very delayed and/or markedly reduced in intensity?

In the case of dyspareunia and vaginismus, clarification of the aspects of the woman's pain, her fear of pain, and avoidance responses are recommended (Table 2).

A detailed medical enquiry with review of systems is highly recommended for all sexual dysfunctions (Table 1). This would include screening for depression as regardless of antidepressant use depression is consistently related to sexual dysfunction, particularly to low sexual desire. **Grade C.**

Table 1 Components of a comprehensive sexual, medical, psychosocial history

	Biological	Psychosocial	Sexual
Symptoms	Establish current general health.	Establish current mood and mental health.	Establish the sexual difficulties in her own words (e.g., cannot become aroused, always has pain with intercourse).
Present context *Precipitating and maintaining*	Clarify current medications/ substance use, level of fatigue, presence of nonsexual pain.	Identify nature and duration of current relationship. Societal values/beliefs impacting the sexual problems.	Clarify the context when activity is attempted, including type of sexual stimulation, the woman's feelings towards her partner at the time, the safety and privacy of the situation.
Past context Predisposing and precipitating	Establish past medical history.	Particularly for lifelong sexual problems, it is often necessary to at least briefly clarify developmental history, particularly relationships with caregivers, siblings, traumas, and losses, and ability to form attachments.	Clarify past sexual experiences alone and partnered, wanted, coercive and abusive.
Onset *Precipitating*	Document past medical details at time of onset of sexual problems.	Clarify circumstances, including relationship and psychological contributors, at time of onset of sexual problems.	Enquire if there was a time when the above sexual problems were not present (when was that time and what were the sexual circumstances).
Generate full picture of her current sexual response	If relevant medical context is present, obtain details re effects on sexual activity, e.g., cardiac compromise, or neurological deficit.	Evaluate personality factors including control issues, ability to express non-sexual emotions.	Establish the rest of the sexual response cycle (sexual interest, arousal, orgasm, satisfaction, and freedom from pain associated with sexual stimulation or intercourse).
Role of the partner *Precipitating and maintaining*	Clarify partner's medical health.	Clarify partner's mood and mental health, partner's reaction to sexual problems.	Establish her partner's sexual response cycle.
Distress	Level of distress regarding medical issues.	Level of distress regarding psychosocial issues.	Reaction to the sexual difficulties, degree of distress.

Assessment of Dysfunction in the Context of Chronic Illness

The multiple factors contributing directly or indirectly to sexual dysfunction require assessment. Included are alterations in response from the disease itself, its treatment, comorbid depression, associated pain, immobility, fatigue as well as impairment of self-image, loss of independence, of continence and of fertility, and difficulties with partnerships imposed by the disease.

Physical Examination

The genital exam is often highly informative, can be very therapeutic, but its intimate nature demands there must be a reason for its inclusion. A focused pelvic genital exam is highly recommended in the following circumstances:

- For women with dyspareunia, especially those with lifelong pain and difficulty with penile entry, an educational exam is recommended.
- For women with vaginismus diagnosed from the history, confirmation is obtained by an exam done in progressive stages once fear of vaginal entry has lessened with therapy: an educational exam is advocated.
- For women with genital arousal disorder, information will be limited because the genitalia are in a non-aroused state, but estrogen deficiency, or more rarely, disease such as connective tissue disorder, can be identified.
- For women with combined arousal disorders likely there will be no abnormality. Nothing arouses these women mentally/subjectively be it written, visual, nongenital physical stimulation, and the evidence to date is that their genital response is healthy. Nevertheless, a "normal" exam is highly informative to the woman. It is also possible that a woman with combined arousal disorder goes on to become estrogen deficient—adding physical vulvar atrophy to her longstanding problems of disconnection from genital events.

Table 2 Assessment of sexual pain

1 Pain
Where does it hurt? How would you describe the pain?
Is the pain with penile contact to the opening of your vagina, once the penis is partially in, with full entry, after some thrusting, after deep thrusting, with the partner's ejaculation, after withdrawal and for how long, with subsequent micturition?
Do you find your body is tensing when your partner is attempting, or you are attempting to insert his penis? What are your thoughts and feelings at this time?
How long does the pain last? Does touching cause pain? Does it hurt when you ride your bicycle or when you wear tight clothes? Do other forms of penetration hurt (tampons, fingers)?
2 Pelvic floor muscle tension
Do you recognize the feeling of pelvic floor muscle tension during sexual contact?
Do you recognize the feeling of pelvic floor muscle tension in other (non-sexual) situations?
3 Arousal
Do you feel subjectively excited when you attempt intercourse? Does your vagina become sufficiently moist? Do you recognize the feeling of drying-up?
4 Consequences of the complaint
What do you do when you experience pain during sexual contact? Do you still continue to include intercourse or attempts at intercourse, or do you use other ways to make love instead? If so, are you both clear intercourse will not be attempted?
What consequences does the pain have on the rest of your sexual relationship?
5 Biomedical antecedents
When and how did the pain start? What tests have been done? What treatment have you received?

- For women with neurological disease affecting pelvic nerves where a detailed neurological genital exam is also necessary, clarify light touch, pressure, pain, temperature sensation, anal and vaginal tone, voluntary tightening of anus, and vaginal and bulbocavernosal reflexes.
- For women with a history of pelvic trauma.
- For women with any disease potentially affecting genital health.
- For women with acquired and lifelong orgasmic disorder even if otherwise healthy. A normal examination is of reassurance value.
- When the history indicates the opportunity for Pap smear/sexually transmitted infection investigation should be taken.

Grade C

A general physical exam is highly recommended as dictated by the general medical enquiry, for women with chronic illness and as part of good medical care, for example evaluation of blood pressure, breast exam, etc. **Grade C.**

Although frequently no laboratory investigations are needed for assessment of the sexual dysfunction per se, certain situations may require laboratory testing and are guided by the general medical assessment, for example, fasting blood glucose, or thyroid stimulation hormone. When an infective etiology for dyspareunia is possible, vaginal, cervical, and vulval discharge microscopy/cultures should be performed. When investigational testosterone therapy is contemplated, accurate assay of baseline serum testosterone via mass spectrometry methods is recommended (see subsequent discussion).

Psychophysiological Assessment of Arousal

Psychophysiological tools are available but typically reserved for the research setting. Observation of the genital arousal response to adequate stimulation by means of audiovisual, cognitive (fantasy), and/or vibrotactile stimuli may be useful. However, it is important to note that this often does not correlate with the woman's subjective report of (impaired) sexual arousal. Although psychophysiological testing to date is not a routine assessment, such a test may be crucial in establishing the etiology of arousal disorder. Recent study has demonstrated how difficult it is to rule out that sexual arousal problems are not caused by a lack of adequate sexual stimulation. Moreover, women with sexual arousal disorder may be less aware of their own genital changes; thus, they lack adequate proprioceptive feedback that may further increase their arousal. A normal genital response demonstrated in the laboratory would clarify the lesser importance of any identified organic factors potentially contributing to the arousal problem of the individual. The evidence is that sexual arousal problems in medically healthy women are more often related to inadequate sexual stimulation caused by personal, contextual, and/or relational variables than to somatic causes (of note, nonresponse in the psychophysiological assessment does not automatically imply organicity—the woman may have been too nervous or distracted for the stimuli to be effective, or the stimuli offered may not have matched her sexual preferences).

Self-Report Measures

The Female Sexual Function Index is currently the most often used measure. Diagnostic cut off scores were developed by means of sophisticated statistical procedures. Together with a Female Sexual Distress Scale score of 11 or higher, indicating distress, there is some evidence to suspect a diagnosis of sexual dysfunction. Use of self-report measures alone is not recommended for clinical purposes because they lack sensitivity and specificity with regard to etiology. Unfortunately,

and contrary to epidemiological and qualitative research, current validated questionnaires are based on the assumption that (distressing) absence of sexual desire ahead of and at the outset of sexual engagement represents dysfunction in all women.

Formulation of Women's Sexual Dysfunctions

Predisposing, precipitating, and maintaining factors should be assessed and often the etiology is multifactorial (Table 1). Common psychosocial issues include a fear of letting go control, fear of negative outcome, inability to stay present, and lack of or inaccurate information regarding women's sexual response. Graham and Bancroft describe a "three windows" approach helpful for contextualizing factors influencing the sexual complaint (Figure 2). These three "windows" echo the descriptors recommended by the AUAF committee in 2003.The first window describes aspects of the woman's current situation (e.g., poor communication, relationship difficulties, fatigue, or lack of privacy). The woman plagued with fatigue might benefit from a course of sleep hygiene therapy prior to (or instead of) sex therapy. The second window is to individual vulnerability factors influencing the presentation of complaints. These include the woman's persistently negative attitudes about herself and her body, a high need to maintain control in all life and sexual situations, a past history of sexual abuse or trauma such that flashbacks to the prior abuse are frequent and intrusive when she is attempting to be sexual. If such individual vulnerability factors are present, she may benefit from cognitive-behavioral therapy (CBT) treatment focused on that vulnerability factor (e.g., whether it is focused on the sexual assault, perfectionism, etc.). The third window views health-related factors influencing the sexual response, importantly, depression, or anxiety. Included also are problems in the neural control of desire, arousal, and pain perception, problems in vascular supply to the genitals, endocrine dysfunction, and metabolic problems as well as both over-the-counter and prescription medications. The role of deficiency in estrogens and androgens continues to be debated. There is minimal evidence that serum levels of estradiol or testosterone are linked to desire or subjective arousal but assays other than mass spectrometry have been used and these are unreliable at the low testosterone levels found in women. Future studies should measure serum testosterone by mass spectrometry methods in women with and without diagnosed sexual dysfunction. **Grade C.** Moreover, serum levels do not reflect intracrine sex hormone production—the major source of androgen and only source of estrogen in postmenopausal women. Future studies should also measure total testosterone activity by means of androgen metabolites in women with and without definite dysfunction. **Grade C.**

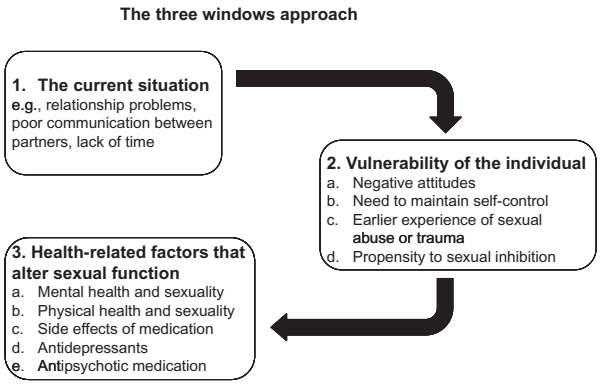

Figure 2 The "three windows" approach to understanding women's sexuality. Adapted from Graham and Bancroft. In: Gelder M, Lopez-Ibor J, Andreasen N, Geddes J, eds. New Oxford Textbook of Psychiatry. 2nd edition Oxford: Oxford University Press; 2009:472–83.

A formulation of the diagnoses is recommended. The formulation integrates all information obtained from (sometimes a series of) in-person assessments of the woman with and without a partner, and any relevant physical examinations, blood assays, psychophysiological testing, and self-report questionnaires. **Grade C.** On the basis of the formulation, a diagnosis is applied, preferably using both the DSM-IV-TR as well as the AUAF systems. The clinician also continues to modify the formulation as information emerges during treatment. The "three windows" approach can be very helpful for considering the many biopsychosocial factors that influence the woman's sexual complaints. An effort should be made to determine the duration and severity of symptoms and to speculate on level of insight and prognosis.

Management of Women's Sexual Dysfunction

General Recommendations; Grade C

Some investigational pharmacological agents are being used to treat specific sexual disorders. The lack of long-term safety data should always be openly discussed. It is recommended that the clinician has an interdisciplinary approach. Research is needed to identify efficacious combined/integrated treatments for sexual dysfunction. Even

when sexual function has been healthy prior to medical insult, there are psychological and interpersonal repercussions plus sexual adaptations that may or may not be useful: medical management alone may be insufficient.

General issues related to improved emotional and physical well-being such as addressing depression or anxiety symptoms, possible alcohol or chemical substance use, insuring adequate sleep, exercise, and healthy diet should first be addressed. Advise also on prescription and nonprescription medications and supplements. Referral to appropriate medical or specialty providers may be necessary especially in the context of chronic disease or significant psychological symptoms. The early stage of treatment might also include providing education on sexual response, basic genital anatomy and physiology, and a discussion of sexual stimulation and sexual activities other than intercourse. Patients should be encouraged to use techniques that encourage arousal including enhancing the sexual context and stimuli.

Management of Desire and Comorbid Combined Arousal Disorders

Discussion of the normality of age and relationship duration-associated declines in sexual drive is a logical first step in treating the woman with distressing low desire. The clinician can provide a current understanding of how desire is triggered and that women have a variety of reasons and incentives for sexual engagement, encouraging the woman to consider her own reasons for sexual activity and challenging her belief that "sex should only happen when I'm in the mood". For women with a DSM-IV-TR diagnosis of HSDD but who retain the ability to become sexually excited during the encounter thereby triggering desire, this process of discussing incentives for sexual activity is especially important and often sufficient. For women with sexual interest/desire disorder (with associated arousal disorder) discussion of the components of women's sexual response depicted in Figure 1, and identifying problematic areas may be sufficient to allow women and their partners to make the needed changes (Level 4). For other women, however, more intensive strategy will be required.

Psychosexual Treatment for Desire and Arousal Disorders

There are few outcome studies but our general recommendation is that when the low desire is better accounted for by depression, poor body image, sexual abuse sequelae, or other more general personality, individual, or relationship factors, then those factors must be addressed initially. **Grade C.**

Psychological management of desire and arousal disorder might include CBT and traditional sex therapy.

CBT is based on the theory that thoughts, feelings, and behaviors interact and mutually influence one another. By targeting negative or maladaptive thoughts, both behaviors and affect can improve and disrupt the dysfunctional cycle. The behavioral component includes attending to a problematic sexual context or behaviors in either partner which reduce attractiveness or trust and ability to focus on the sexual stimuli and feelings. The cognitive component of CBT targets maladaptive thoughts that foster negative emotions and maintain problematic behavior such as avoidance. This may include identifying and challenging beliefs that she is unattractive, idealizing an unrealistic mode of sexual response portrayed by media, or challenging beliefs that unless she feels a high level of desire all the time, then she is dysfunctional. Group CBT improves sexual desire disorder in 74% of couples and this effect was maintained in 64% at 1 year (Level 2). A modified Masters and Johnson sex therapy was also found to improve sexual function in 57% of women with sexual desire disorder (Level 3).

Other psychological modalities have also been investigated and may target more distant factors in the woman's history such as unresolved themes from childhood including abuse or neglect, control issues, low sexual self-image. There has been only one published study using such an approach, however, there was a benefit to sexual desire in women (Level 3).

More traditional sex therapy stems from the work of Masters and Johnson and Kaplan, and includes sensate focus exercises consisting of exchanging physical touch, moving from nonsexual to sexual areas of the body, with partners taking turns and giving verbal and tactile feedback. Among the very limited available empirical literature, one study showed that 65% of 365 married couples improved by clinical judgment at the end of therapy (Level 3).

Most recently, a mindfulness-based CBT administered to women in group format with desire and arousal disorder has also been explored in an uncontrolled trial. Mindfulness is an eastern practice with roots in Buddhist meditation that focuses

on present moment, nonjudgmental awareness. Women were taught in-session mindfulness exercises and encouraged to practice for approximately 5 hours during the 2 weeks between each of the four sessions. This resulted in significant improvements in sexual desire, arousal and other domains of sexual response and mood (Level 3). One noncontrolled trial of mindfulness-based CBT for women with genital arousal disorder secondary to gynecologic cancer found significant improvements in sexual response, distress, and mood (Level 3).

Recommendation Regarding Management of Low Desire

Psychological approaches to low desire have a long history and have been found to be effective immediately after treatment with sustained improvements over time. Moreover, they are without adverse side effects. Newer CBTs that integrate mindfulness meditation have shown excellent promise for sexual desire problems but await randomized controlled testing. There is also evidence that brief cognitive behavioral interventions are helpful for improving desire. Overall there is an urgent need for more randomized controlled investigations of psychological therapy for women's low desire/interest disorders. **Grade C.**

Recommendation Regarding Management of Low Arousal

Despite our support for evidence-based practice, careful management of women with sexual problems according to the rules of "good clinical practice" must continue without solid proof of efficacy. There is one noncontrolled trial showing benefit of mindfulness-based CBT for genital arousal disorder in women secondary to gynecologic cancer. There is clearly great need for controlled efficacy studies in this area. From our review we conclude that the majority of sexual arousal problems in healthy women are not related to impaired genital responsiveness: it follows that we recommend psychological treatment for arousal disorder. **Grade C.**

Hormonal Treatment of Low Desire and Low Arousal

Testosterone

Randomized trials of transdermal testosterone have mostly targeted surgically and naturally menopausal women. Both sudden loss of ovarian androgens and the inevitable decline in adrenal sex hormone precursors might predispose to desire and arousal disorders. However the evidence is inconclusive. Prospective studies have not confirmed sexual dysfunction subsequent to surgical menopause for benign disease. Distress about low desire is more prevalent in relatively recently surgically menopausal women, but not low desire per se. The prevalence of low desire may increase with age, but low desire associated with distress changes little with age.

A review of testosterone trials among estrogen replete surgically and naturally menopausal women found that those women receiving the 300 μg/day patch reported an increase in sexually satisfying events of 1.9 per month vs. 0.9 events per month from placebo and significant increase in desire for sex

Notably, in all of the recent testosterone trials, a strict entry criterion was a certain baseline frequency of satisfactory sexual activity and most women experienced two to three sexually satisfying episodes per month. Compared with the majority of women seeking treatment for sexual difficulties, where sexual frequency may take place on a once every several month basis, women recruited for research trials have a much higher level of sexual response and frequency. It is unknown if testosterone therapy would be of benefit to the large majority of women seeking treatment for sexual desire concerns. Moreover, what also remains unknown is whether testosterone treatment would significantly benefit women meeting the AUAF definitions of Sexual Desire/Interest Disorder, where there is lack of interest for sexual activity but also a failure to become sexually excited during the sexual interaction.

Despite its lack of approval in the United States, many women seek out testosterone therapy for problematic low desire. Formulations for men are adapted or compounded preparations are prescribed whose safety and/or efficacy have not been evaluated. Testosterone patches are approved for use in surgically menopausal women in Europe. We recommend that the clinician and patient should engage in a careful discussion of the benefits and hazards of such treatment. **Grade C.** Whether breast cancer and cardiovascular disease would be increased is unclear. **Grade D.**

Summary of Recommendations on Testosterone Therapy

The decision to use must be individualized and patients informed about risks and benefits. **Grade C.** The testosterone patch appears to be effective

in the short term in postmenopausal women with HSDD. **Grade B.** Patients must be informed about lack of long term safety data. **Grade C.** Additional studies are needed before long-term use is recommended. **Grade C.** Use of testosterone in pre- and perimenopausal women is not supported by current data. **Grade A.** Achieving physiological testosterone levels by transdermal delivery minimizes adverse effects. **Grades C and D.** Relative contraindications include androgenic alopecia, acne, hirsutism hyperlipidemia, and liver dysfunction. **Grade C.** Absolute contraindications include presence or high risk of breast cancer, endometrial cancer, venothrombotic episodes, cardiovascular disease. **Grade C.**

Monitoring should include annual breast and pelvic examinations, annual mammography, evaluation of abnormal bleeding, evaluation for acne, hirsutism, and androgenic alopecia. Monitor testosterone by mass spectrometry (sex hormone binding globulin, calculated free T) with goal of not exceeding normal values. Consider lipid profile, liver function tests, complete blood count. Use for more than 6 months is contingent on clear improvement and absence of adverse effects. **Grade C.**

Estrogen

There is evidence that treatment with local and systemic estrogen benefits vulvovaginal atrophy and relieves vaginal dryness and dyspareunia (Level 1).

Local Dehydroepiandrosterone (DHEA)

A recent randomized controlled trial (RCT) of vaginal DHEA benefited vaginal atrophy and other aspects of sexual function. No increases in serum DHEA, testosterone, estradiol, or androgen metabolites were detected. No recommendation can be made until this is validated by others.

Selective Estrogen Receptor Modulators (SERMs)

A SERM was originally defined as a compound that binds with high affinity to the estrogen receptor (ER), without significant binding activity to any other nuclear receptor; which induces "estrogen agonistic" activities in some tissues, and "estrogen antagonistic" activities in others. Emerging data show that the interaction between a particular SERM and the ER results in a response in a given tissue that cannot necessarily be characterized simply as either "agonistic" or "antagonistic." Each SERM may have a unique set of clinical responses, which are not always predictable from those seen with another SERM. Ospemifene is a novel SERM under trial for the treatment of vaginal atrophy in postmenopausal women.

Tibolone

Tibolone is a 19-nor testosterone derivative that is metabolized into three main metabolites: the 3α-hydroxy and the 3β-hydroxy, which are estrogenic, and the δ-4 isomer, which has progestagenic and androgenic properties. Tibolone is a selective tissue estrogenic activity regulator. In postmenopausal women, it acts as an estrogen on brain, vagina, and bone, but not on endometrium and breast. Sexual benefit has mostly been recorded in women recruited for reasons other than sexual dysfunction. Tibolone is available in Europe but has been declined approval in the United States.

Nonhormonal Treatment of Low Desire and Low Arousal

Centrally Acting Agents

In nondepressed women with HSDD, the antidepressant buproprion, which blocks norepinephrine and dopamine reuptake, was found to significantly improve sexual arousal and orgasm, but not sexual desire (Level 2). In women with selective serotonin reuptake inhibitor (SSRI)-associated mixed sexual symptoms, 4 weeks of treatment with the addition of bupropion led to a significant increase in self-reported feelings of desire and sexual activity, but no significant effect on sexual thoughts (Level 1). Flibanserin is a 5-HT_{1A} agonist/5-HT_{2A} antagonist and was originally tested as an antidepressant. In an unpublished trial of 333 women with generalized, acquired HSDD, flibanserin showed a significant improvement over placebo on all FSFI domains, sexually satisfying events, and daily diary measures of desire (Level 1).

Centrally acting agents show some promise for targeting low desire in women but published RCTs are required and an evaluation of their safety remains to be studied. **Grade C.**

Phosphodiesterase Inhibitors

In a large study of diagnostically heterogeneous sexually dysfunctional women, 50–100 mg of sildenafil showed no benefit. In general, the literature has conflicting findings with one study showing benefit dependent upon psychophysiologically measured impairments in sexual arousal. In small studies of women with impaired genital arousal caused by spinal cord injury or diabetes there was a significant beneficial effect of sildenafil.

A new approach to the study of efficacy of phosphodiesterase type 5 (PDE5) inhibitors is combining this drug with testosterone. The rationale for such an approach is that activation of central sexual mechanisms is necessary for the interpretation of stimuli as sexually inviting. Then these stimuli can produce (behavioral) sexual responses (i.e., an increase in sexual desire and motivation, inducing sexual approach behavior). Activation of central "sexual" mechanisms is a necessary condition for activation of the nitric oxide pathway, which in turn is necessary for a PDE5 inhibitor to be effective. The authors argue that centrally working drugs will increase the sensitivity for sexual stimuli, and may induce a condition required for PDE5 inhibitors to be effective. Color naming latency times in a Stroop test was the measure of preconscious attentional bias for sexual cues. In an initially low-attention group, preconscious attentional bias increased with testosterone, in another initially high-attention group, attentional bias decreased with testosterone. Only in the former group did the combination of 0.5 mg of sublingual testosterone (producing high supraphysiological levels) and 10 mg of vardenafil cause an improvement in genital response (vaginal pulse amplitude) and subjective indices of sexual functioning, supporting the idea that testosterone sensitizes the brain, paving the way for vardenafil to be effective. The high dose of testosterone administered in this study limits the generalizability of the findings.

In summary, women with various medical conditions, but not medically healthy women, may have an impaired genital response and may therefore have more to gain from a genital arousal enhancing agent such as a PDE5 inhibitor. Similarly, other briefly studied drugs to augment genital congestion, e.g., l-arginine, prostaglandins, phentolamine are unlikely to benefit healthy women with arousal disorders. PDE5 inhibitors combined with high dose testosterone may have a beneficial effect over placebo in certain groups; however, the high dose testosterone requires safety evaluation.

Management of Orgasmic Disorder

In their 1997 review, Heiman and Meston concluded that only directed masturbation treatment for lifelong orgasmic disorder fulfils the criteria of "well-established" treatment. directed masturbation studies for acquired disorder fell within the "probably efficacious" group. This conclusion is still valid. Directed masturbation in conjunction with sex education, anxiety reduction techniques, and CBT remains the main therapeutic tool. No effective pharmacological treatments have been found to date for orgasmic disorder.

Ninety eight women with SSRI-induced FOD were recruited over 4 years across seven American treatment centers to an RCT of 50–100 mg sildenafil. Orgasmic function significantly improved in the treatment group. However, the highly specific inclusion criteria call into question the generalizability of the findings.

In conclusion, there are no significant new data on orgasmic disorder since the 2003 International Consultation except the one published RCT of sildenafil showing positive effects on orgasmic disorder in a highly selective sample of women with SSRI-induced orgasmic disorder. **Grade C.**

Management of Sexual Dysfunction in Women with Endocrine Disease

Recommendations on the management of sexual dysfunction in the context of neurological, renal and psychiatric illness, and cancer are addressed in other articles.

Endocrine disorders that alter estrogens and testosterone and precursors variably impact female sexual function. The consequences of hormone therapies in these states, including, hypothalamic amenorrhea, premature ovarian failure, surgical, and natural menopause is variable but is indicative of benefits of low-dose HT in individual patients. Hormonal therapy for chemically induced estrogen deficiency from SERMs and aromatase inhibitors has not been studied.

Hypopituitarism, hyperprolactinemia, thyroid disorders, and adrenal insufficiency alter a variety of hormones, each to a variable extent. Data are limited on the effects of therapies with estrogens, testosterone, and DHEA in each of these disorders, but they may provide additional model systems for future interventional trials. Studies on the effects of hormonal excess observed in polycystic ovary syndrome (PCOS), hormonally active ovarian or adrenal tumors, congenital adrenal hyperplasia, and obesity-induced hyperandrogenism do not suggest that excess androgens and/or estrogens per se promote normal or hypersexuality, suggesting an optimal balance of hormonal milieu is critical to normal sexual functioning. Information on the effects of diabetes and metabolic syndrome on female sexual dysfunction suggest that this is a common problem, but no data are available as to interventions to improve metabolic controls and subsequent effects on female

sexual function. Most importantly, the available literature emphasizes that hormones are only one component of the many factors that contribute to normal sexual function in women.

Conclusions and Recommendations

For hypopituitarism associated with E, T, and DHEA deficiency, consider ET and T until age of natural menopause, unless medically contraindicated. **Grade B.**

For hyperprolactinemia, data are lacking on any effect of prolactin on sexual function independent of effects on estrogens. We recommend further studies on effects of hyperprolactinemia and female sexual function. **Grade C.**

Data are lacking on thyroid dysfunction and sexual function in women and studies are recommended.

The majority of the albeit small clinical trials of DHEA in women with primary or secondary adrenal insufficiency do not show benefits on sexual function and DHEA is not recommended for women with adrenal insufficiency. **Grade A.**

Interestingly, case series of women with androgen insensitivity syndrome (genetic XY) show *normal* sexual function. This represents a model of high estrogen state without any androgen action.

Overweight but not lean women with PCOS have increased incidence of sexual dysfunction. Further research in women with PCOS needed.

Studies on women with sex hormone producing tumors are inconsistent.

Data are limited on sexual function in women with congenital adrenal hyperplasia. We recommend individualized management of signs and symptoms of androgen excess along with psychosexual counseling. **Grade C.**

There is an increased incidence of sexual dysfunction in diabetes types 1 and 2, which is strongly linked to comorbid depression. Glycemic control does not correlate with sexual function. **Grade B.** We recommend screening women with diabetes for sexual dysfunction. **Grade C.**

There is an increased incidence of sexual dysfunction in women with metabolic syndrome (Level3). This may be caused by metabolic, vascular, neurogenic, hormonal, and psychological etiologies. We recommend screening women with metabolic syndrome for sexual dysfunction. We also recommend studies of treatment interventions.

Management of Sexual Pain Disorders

Sexual pain disorders are heterogeneous, multisystemic, and multifactorial disorders. Other pain syndromes may be present. In general treatment should be multimodal taking into account etiological factors, risk profile, and context.

Research of psychological function in women with provoked vestibulodynia (PVD)—the most prevalent type of sexual pain—has shown an increased prevalence of comorbid psychopathology, specifically depression and anxiety disorders. However, both more problematic and non-affected psychological functioning has been reported. Although this could reflect differences in study samples and instrumentation, it could also indicate true heterogeneity of women with PVD. However, increased trait anxiety, pain catastrophizing, reward dependency, and harm avoidance have consistently been found in multiple studies. This may represent a complex of stable characteristics of avoidant, dependent, and obsessive–compulsive personality features, which may be etiologically important. Single-study findings of women with PVD included elevated rates of shyness, perfectionism, low self-esteem, and negative feelings towards sexual interaction, erotophobia, and problems with subjective sexual arousal and lubrication during sexual interaction with partner, but not during masturbation.

Women with PVD have been found to be more sensitive to thermal, painful, and tactile stimulation, reflected in lowered thresholds for sensitivity. An etiological element may be a deficit in information processing, i.e., hypervigilance for pain-related stimuli. These latter findings require replication in future studies.

Women with vaginismus have been found to have significantly increased comorbid anxiety, but not depressive disorders. The role of childhood sexual trauma is unclear since different frequency rates were found, and rates of posttraumatic stress disorder have not yet been investigated. Psychological characteristics, measured with self-report instruments, only partially lend support to the role of anxiety in the etiology of vaginismus. Personality features found to be more often present in this group include the presence of pain catastrophizing cognitions, disgust propensity, and a specific fear of penile-vaginal penetration.

Treatment Modalities for Subtypes of Chronic Dyspareunia

In Table 3 the various treatment modalities for subtypes of chronic dyspareunia are outlined. They include chronic pain medications along with sexual and psychological methods.

Table 3 Management of subtypes of chronic dyspareunia

Medical disorder	Type of dyspareunia	Findings on physical examination	Therapeutic options and general comments
Vulvovaginal atrophy: associated with menopause, renal failure, hypothalamic or pituitary disease	Introital pain and with penile-vaginal movement. Possible post coital burning. Deeper dyspareunia when vaginal atrophy advanced.	Pallor, dryness, increased fragility and thinning of vulvovaginal epithelium, vaginal shortening, loss of rugae, narrowing, or urethral caruncle.	Local ET is highly recommended: vaginal ring or tablet. Although minimal systemic absorption is possible, there are no reports of adverse effects. Tibolone improves this disorder beyond placebo. Frequent sexual arousal and (if necessary), nonpenetrative activity may promote genital health. Recent trials of vaginal DHEA show promise
Chronic (abdominal) pain; Endometriosis Chronic PID; IBS; Crohn's disease; Ulcerative colitis; Ovarian tumor; Abdominal wall pain.	Deep dyspareunia. IBS is also associated with introital pain from comorbid PVD.	General tenderness to deep bimanual examination.	Sexual dysfunction is highly prevalent in such patients. Organic disorders should be treated accordingly but sexual dysfunction may still need to be specifically managed. Irrespective of the organic or functional nature of the pain, a history of possible negative sexual experiences should be queried before any procedures or treatment.
Lower urinary tract symptoms (LUTS) with urinary incontinence.	Introital and deep dyspareunia or vulvar burning after sexual intercourse.	Perineal and vulvar inflammation.	Voiding dysfunction, recurrent bacterial cystitis, hypoactive sexual desire, and sexual pain disorders are highly correlated. For recurrent cystitis give local ET, antibiotic self-treatment or preventative treatment, and recommend postcoital micturition (based on CE). In case of prolapse, surgical treatment can be curative but can also have undesired effects on sexual functioning.
Pelvic radiation.	Introital and deep dyspareunia.	Thinning and fragility of vaginal epithelium, loss of elasticity, stenosis, or foreshortening.	Preventive measures such as transposition of the ovaries to prevent ovarian failure. Therapeutic options based on CE include couple counselling about non-penetrative sexual activity, topical ET, lubricants, vaginal inserts, and vaginal reconstruction.
Chronic vulvovaginal candidiasis associated with diabetes and HIV.	Introital dyspareunia and with penile vaginal movement.	Erythema, swelling of vulva, and thick white or pale yellow vaginal discharge.	Oral agents recommended for recurrent symptomatic candidiasis.
Provoked vestibulodynia (PVD) associated with IBS, fibromyalgia, interstitial cystitis (IC), and other pain syndromes.	Superficial vulvovaginal pain on (attempted) penetration, pain on non-penetrative vulvovaginal touching, postcoital burning, or burning from partner's ejaculation fluid.	Variable erythema of the vestibule. Allodynia typically located between 4 and 8 o'clock on the introitus, just exterior to the hymenal ring but can involve the skin around the openings of the Skene's ducts or the whole introital rim. Hypertonic pelvic floor muscles. Pain with attempted digital or speculum entry.	Vaginal EMG biofeedback, pelvic floor physical therapy, (group) CBT, supportive psychotherapy, TENS and vestibulectomy have been shown to have clinical benefit. Based only on CE is treatment with topical estrogen, cromolyn, xylocaine, capsaicin Based on CE, and the not yet proven assumption that neuropathic pain is at least in part responsible for the pain of provoked vestibulodynia, give TCAs or AEDs. For comorbid IC, DBPTs have shown benefit of oral or intravesical pentosan polysulfate, intravesical dimethyl sulfoxide or resiniferatoxin (vallinoid). Based on CE, there may also be benefit from antihistamines, quercetin, intravesical heparin, lidocaine, or a combination.
Generalized vulvodynia.	Introital dyspareunia and pain with penile-vaginal movement. The pain is always/almost always constant, covers the entire vulvar area, and may or may not be increased upon provocation.	None.	Vulvar burning and pain that causes sexual and psychological distress accompanied by the complete absence of any physical abnormality on examination, in biopsies or culture. Based on CE, TCAs, or AEDs can be of partial benefit.
Female genital mutilation (FGM).	Introital pain and with penile–vaginal movement and deep dyspareunia.	Type I: all or part of the clitoris and its prepuce or skin excised. Type II: clitoris excised, labia minora partially or totally removed. Type III: all external genitalia excised, vaginal opening closed except for a matchtip-sized hole to allow urine and blood to escape.	Experienced by an estimated 130 million women, in particular from north Africa, the middle east, and southeast Asia. Most of the studies do not support the hypothesis that FGM destroys sexual function or precludes enjoyment of sexual relations. Based on CE, use a respectful approach and provide information about health consequences. Offer sexual counselling, psychotherapy, and support groups. Offer to repair the vulva, vagina, or both. Involve the partner, the family, or both in decisions. Clarify the legal and ethical responsibility of the physician, who must decline any request to re-infibulate after childbirth. Offer specific management of sexual dysfunction as needed.
Dermatological diseases.	Can be introital dyspareunia (e.g., eczema) or deep (e.g., lichen planus affecting vagina.	Benign non-STI: can be atopic eczema, contact dermatitis (including iatrogenic), lichen simplex, lichen sclerosis, lichen planus, psoriasis, hidradenoma, fox-fordyce, chronic vestibular gland infection, pediculosis pubis, pin worm infections, Behçet's, aphthous ulcers, cicatricial pemphigoid, pyoderma gangrenosum, anorectal Crohn's, burn, or trauma.	For a benign non-STI, based on CE, give corticosteroids (oral, topical or injectable); immunosuppressive drugs (azathioprine, dapsone, tacrolimus, pimecrolimus, thalidomide, or imfliximab); immune augmentation drugs (imiquimod); surgery; behavioral and physical therapy; and biofeedback. Also offer psychosexual support for sexual problems resulting from limited skin contact, visible symptoms, disrupted self-image, inability to meet a partner, shame, lack of confidence, or a combination of these.
		STD can be HSV, syphilis, chancroid, lymphogranuloma venereum, granuloma inguinale, condylomata accuminata, or molluscum contagiosum. Neoplasia can be VIN, vulvar Paget's, or melanoma.	For treatment options for STI consult Guidelines from ISTI, WHO and CDC USA. Asymptomatic shedding and further infection necessitate strong encouragement of protective measures and safe sex. For neoplasia attempt surgery, laser therapy with radiation, or chemotherapy, as appropriate. Sexual activities do not stop for most couples. Based on CE, psychosexual counselling can be of benefit, in particular in the first year after treatment.
Anatomical variations.	Introital or deep dyspareunia depending on abnormality.	Labial fusions, rigid hymen, vaginal septum, vaginal agenesis, or hypoplastic vagina.	Based on CE, in case of vaginal agenesis nonsurgical options can be highly successful. Surgical intervention is recommended for imperforate hymen, labial fusions, or a painful vaginal septum.

AEDs = antiepileptic drugs; CBT = cognitive-behavioral therapy; CE = clinical experience; DBCT = double-blind placebo controlled trials; ET = estrogen therapy; HIV = human immunodeficiency virus; HS = herpes simplex; IBS = irritable bowel syndrome; PID = pelvic inflammatory disease; STD = sexually transmitted disease; STI = sexually transmitted infection; TCAs = tricyclic antidepressants; VIN = Vulvar intraepithelial neoplasia; PVD = provoked vestibulodynia.

PVD

In terms of *medical interventions* for PVD, there are only three level 2 RCTs. Neither fluconazol nor cromolyn 4% proved to be more effective than placebo. Botulinum toxin injections did not result in significantly greater improvements in pain, sexual function, or sexual distress as compared with a placebo (saline injections); in fact, the placebo group fared better than the botulinum toxin group in terms of sexual distress scores. Other medical interventions with some reported success include capsaicin, ketoconazole, lidocaine/xylocaine, tricyclic antidepressants, duloxetine, venlafaxine, and anticonvulsants—carbamazepine and gabapentin. **Grades C/D.**

Vaginal EMG Biofeedback, Pelvic Floor Physical Therapy, (Group) Cognitive Behavioral Therapy, TENS, and Vestibulectomy. **Grade B**

Although receiving limited study, pelvic floor EMG biofeedback and physical therapy, Kegel and relaxation exercises, TENS, (group) CBT are clinically useful interventions with long-term benefit. Similar benefit is also seen from multilevel local anesthetic nerve blockade and from vestibulectomy in certain (more localized and not lifelong) cases (Level 2/3).

Vaginismus

Although "vaginismus" (strictly defined as fear and difficulty with penetration with associated muscle tightening and no physical changes such as allodynia), and PVD often overlap in terms of clinical presentation and may respond to some similar treatment options (e.g., pelvic floor physical therapy, sex therapy), treatment options for vaginismus typically tend to target the muscle tightening over and above the symptom of (feared) pain. As such, the major focus of treatment tends to be vaginal accommodation/dilatation combined with progressive desensitization and a variety of relaxation techniques. Additional components may also be part of the treatment regimen, ranging from sex education to decreasing penetration fear and anxiety.

Some literature on less commonly used adjunct components also exists, and includes educational gynecological examinations, the application of topical anesthetics, pelvic floor biofeedback, botulinum toxin injections, anxiolytic medication, and surgical intervention.

Many treatment studies are methodologically unsound. Recently, an RCT (N = 117) was conducted comparing group CBT and bibliotherapy for women with lifelong vaginismus, and waiting list. At posttreatment, 14% of treated women were able to experience vaginal penetration as compared with none in the control group. At the 12-month follow-up, 21% of the women in the CBT group and 15% of the women in the bibliotherapy group reported successful intercourse. Outcome was predicted by reduced fear of intercourse and avoidance. A recent prospective trial investigated the effectiveness of therapist-aided exposure for lifelong vaginismus. Ten women were evaluated during 24 weeks. During exposure, patients performed vaginal penetration exercises on themselves, in the presence of a female therapist. Nine of 10 participants reported having intercourse after treatment, and in five of nine, intercourse was possible within the first week of treatment. The results were sustained at 1-year follow-up.

Management of Sexual Dysfunction for the Woman with Previous Child Sexual Abuse

If considered necessary (see previous section), treatment for the sexual trauma should predate any treatment for sexual dysfunction. Therapy should help women understand any possible connections between past and current sexual functioning, particularly in regard to trust and being sexually vulnerable. Important aspects of therapy include:

- Encouragement that women can be in control of their sexual encounters.
- Women learning to be able to mentally and physically relax prior to and while receiving sexual stimulation.
- Women's recognition that they need only engage in encounters with which they are fully comfortable.
- Helping women to develop verbal and nonverbal communication with their partners to limit further sexual stimulation when they feel overwhelmed, "numb," or fearful.
- Assisting women's development of relationships where there is a healthy balance of power to minimize feelings of victimization and maximize feelings of control.

Corresponding Author: Rosemary Basson, MD, FRCP, UBC Department of Psychiatry, B.C. Centre for Sexual Medicine, Vancouver General Hospital, 855 West 12th Avenue, Vancouver, BC, Canada V5Z 1M9. Tel: (604) 875-8254; Fax: (604) 875-8249; E-mail: sexmed@interchange.ubc.ca

Conflict of Interest: None declared.