Managing Female Sexual Dysfunction in the 21st Century

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The invention of the "blue pill" revolutionised the management of male erectile dysfunction in the past ten years and raised optimism about a quick fix for other sexual problems. Despite significant anatomic and embryologic parallels between men and women, the multifaceted nature of female sexual response clearly makes it distinct from the male response. Therefore, clinicians cannot approach female sexual dysfunction using the protocol for male patients. Much effort has been put into the study of female sexuality but a major breakthrough is still awaiting.

Diagnosis and Aetiology

Most of the description on female sexual response is based on the male model: desire, arousal, orgasm and resolution. However, female sexual responses are different from that of male. Women can achieve orgasm without achieving desire and arousal. Penetrative sex and reproductive outcome can be achieved without arousal and orgasm. On the other hand, women can have multiple successive orgasms.

The DSM-IV : Diagnostic and Statistical Manual of Mental Disorders (4th edition) of the American Psychiatric Association 1 described female sexual dysfunction based on Kaplan's triphasic model of sexual response 2, plus a fourth category of sexual pain disorders. The revised classification (DSM-IV-R) 3 was expanded to include psychogenic and organic causes of sexual dysfunction as well as personal distress as a diagnostic criterion. Since female sexual response is a complex and interrelated process, most patients have more than one dysfunction.

Female sexual dysfunction is subjective as personal experience cannot be verified or quantified. Sexual desire is a complex drive that is rather mysterious in terms of its strength, source, trajectory and expression. There are interpersonal, intrapsychic and biological variations in the experience of sexual desire. Up till now, an individual's willingness and ability to find and respond to sexual stimuli is still immeasurable. Sexual arousal includes subjective feelings of excitement and pleasure as well as physical responses like increased vaginal lubrication and tenting, increased muscle tension, blood pressure, heart rate and respiratory rate during sexual stimulation. However, even in sexually healthy women, the correlation between subjective and objective sensation was highly variable among individuals 4. In fact, psychophysiological research often showed dysynchrony between objective measures of vasocongestion and self-perception of genital engorgement or subjective excitement 3-5. During history taking, clinicians need to differentiate whether the woman really does not respond physiologically or she is not aware of it or ignores / dislikes that feeling thus simply shuts down or she fails to derive pleasure from the sexual stimuli. Arousal disorders are rarely diagnosed in isolation from hypoactive sexual desire disorder and anorgasmia. Anorgasmia is generally defined as the inability to achieve orgasm under sexual stimulation. It was reported that women experience orgasm only 40-80% of the time, regardless of the method of stimulation 6. The experience of orgasm is unique to each woman and largely depends on individual awareness of one's own sexuality hence some researchers proposed that anorgasmia was not a dysfunction 7, 8. Finally, although sexual pain is subjective, careful medical assessment is needed to exclude organic causes. Psychosocial factors can aggravate the pain sensation thus need to be tactfully addressed too.

Although the DSM-IV-R classification is simple, the underlying causes for the four types of sexual dysfunctions are multifaceted. The Working Group for a New View of Women's Sexual Problems has compiled a comprehensive guide to causes of female sexual dysfunction, which is summarised in Table 1 9. Across the lifespan, physical and emotional well being as well as sociocultural expectation continues to shape women's sexuality. At specific time point, life event like marriage, childbirth, divorce, ageing, cancer, surgery, medications and hormonal changes will also make an impact. Anxiety, depression and a history of sexual, physical or emotional abuse are also important causes. It is not easy to elucidate these causes as patients may be reluctant to disclose as a result of embarrassment, guilt, internal conflict or low self esteem.

Clinical Assessment

Clinical assessment includes history taking on the present sexual status, past sexual experience, psychological framework, personal perception and interpretation of the problem, interpersonal relationship and social functioning. Medical disorders such as cardiovascular diseases (e.g. atherosclerosis), endocrine diseases (e.g. diabetes mellitus, prolactinoma), gynaecological diseases (e.g. pelvic surgery, endometriosis, chronic pelvic pain), neurological diseases (e.g. multiple sclerosis), psychiatric diseases (e.g. depression, anxiety), medications (e.g. neuroleptics,
sedatives, selective serotonin reuptake inhibitors, β-blockers) including substance abuse (e.g. alcohol, hallucinogens, marijuana, cocaine, amphetamines) have to be excluded. A detailed gynaecological examination is essential to identify any organic cause for the sexual complaints as well as to educate the patient and her partner about her body.

Most of the sexual distress occurs as a result of wrong information and unrealistic expectation. Therefore, sex education including explanation of sexual anatomy, normal sexual response in men and women, sexual position and technique can correct the problem. Other patients will improve after their myth about sexual intercourse is dispelled, moral inhibition is liberated and awareness of sexual response is restored.

Some couples require sex coaching that provides them with a step-by-step guide to sexual intimacy and introduces them to use aids such as sex toys, games and audio-visual materials.

Referral to a sex therapist should be offered to couples who fail to improve after education and counselling or when the problem is likely to be thorny (Table 2).

Table 1: Causes of female sexual dysfunction

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<th>Sociocultural, political or economic factors</th>
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<tr>
<td>- Ignorance and anxiety due to inadequate sex education, poor access to health services and misconception</td>
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<td>- Sexual avoidance or distress due to perceived inability to meet cultural norms, shame about one's body, sexual attractiveness or sexual identity</td>
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<td>- Inhibitions due to conflict between the sexual norms of one's subculture and those of the dominant culture</td>
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<td>- Lack of interest, fatigue or lack of time due to family and work obligations</td>
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<th>Partner and relationship factors</th>
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<td>- Inhibition, avoidance or distress arising from betrayal, dislike or fear of partner, partner's abuse, power imbalance, poor communication</td>
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<td>- Discrepancies in desire for sexual activity or preferences</td>
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<td>- Difficulty in communicating preferences or initiating, pacing or shaping activities</td>
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<td>- Loss of sexual interest as a result of conflicts or traumatic experiences (e.g. infertility or the death of a child)</td>
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<td>- Inhibitions in arousal or spontaneity due to partner's health or sexual problems</td>
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<th>Psychological factors</th>
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<td>- Sexual aversion, mistrust or inhibition of sexual pleasure due to past abuse, problems with attachment, depression or anxiety</td>
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<tr>
<td>- Sexual inhibition due to fear of sexual acts or their consequences (e.g. pain during intercourse, pregnancy, sexually transmitted disease, loss of partner, loss of reputation)</td>
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<th>Medical factors</th>
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<td>- Medical diseases affecting neurological, neurovascular, cardiovascular, endocrine or other systems of the body</td>
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<td>- Pregnancy, sexually transmitted diseases or other sex-related conditions</td>
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<td>- Side effects of drugs, medications or medical treatments</td>
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<td>- Iatrogenic conditions</td>
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Table 2: Red flags indicating the need for detailed psychosexual evaluation

- Symptoms are lifelong, not acquired.
- Symptoms are situational.
- History of sexual / psychological / emotional trauma and abuse.
- Co-existing psychiatric illness.
- Suspected depression with or without anxiety.
- Dysfunctional relationship, power struggle, conflicts in the couple.
- Poor communication skills.
- Personality trait or disorder.

Sex Therapy

Sex therapy aims at improving sexual functioning and the active participation by a supportive, available partner will positively affect the outcome. A sex therapist is a "sex detective" who conducts comprehensive assessment of the couple including the context in which the patient experiences her sexuality, her self esteem and body image, her relationship with her partner and how does the couple communicate on sexual issues. The analytical skill of the therapist is crucial in identifying the cause(s) of the problem(s) and to elucidate solutions to solve the problem(s). Cognitive-behavioural therapy is adopted to change maladaptive thinking that hinders sexual function and to correct dysfunctional behavioural patterns. A number of home exercises are assigned to them to practise in the privacy of their own rooms. Exercises are tailor-made to suit individual needs and adjusted at each visit according to their progress.

The most established series of homework exercises was designed by Masters and Johnson - Sensate Focus 10. This series of exercises can be tailored to help couples explore their sexual preferences and feelings, relief performance anxiety, facilitate communication at a number of levels or enjoy sexual intimacy. Controlled genital self-stimulation (directed masturbation) with or without mechanical aids (e.g. vibrators, clitoral stimulators) help women with orgasmic disorder. Kegel's exercise, which strengthens the pubococcygeus muscle and enhances pelvic sensation, improves sexual arousal and orgasm. For the treatment of vaginismus, Kegel's exercise is performed after the finger or dilator is inserted into the vagina and the pubococcygeus muscle is trained to relax.

Drugs

Vaginal oestrogen is useful in treating dyspareunia caused by dryness and atrophy in postmenopausal women. In Hong Kong, the formulations available are cream and tablet. These are usually prescribed biweekly or every 3 months depending on the product used and the symptom control of the patient 11, 12. To minimise the risk of hyperplasia, the lowest dose of oestrogen should be given at longest intervals.

Endogenous testosterone levels have not been clearly linked to sexual function in postmenopausal women but exogenous testosterone has been shown to improve sexual function in women with surgical menopause 13, 14. In a prospective trial, oral oestrogen, vaginal oestrogen and the combination of oestrogen and testosterone (tibolone) had been shown to be effective in improving various aspects of sexual function in healthy postmenopausal women 15. In premenopausal women, testosterone therapy was also found to be effective in improving sexual desire, arousal and satisfaction 16. However, testosterone supplementation is not approved in the United States for treating female sexual dysfunction because it lacks safety data. Possible testosterone side-effects include virilisation and reduction in high density lipoprotein cholesterol level.

Testosterone can be converted into oestrogen by the aromatase enzyme in the body and thus is
contraindicated in women with breast cancer. Data on endometrial safety are limited.

With the success of phosphodiesterase type 5 inhibitors in treating male erectile dysfunction, various studies in women had been carried out. Some studies found it effective in women on antidepressants and some women with multiple sclerosis. Other studies did not show any treatment effectiveness in both oestrogen-replete and oestrogen-deficit women without underlying medical problems. Based on the limited data available, it appears that sildenafil offers little or no benefit to most women with sexual dysfunction.

Conclusion

Female sexuality is a complex blend of physical, psychological, emotional and sociocultural stimuli. Researchers and clinicians are still working their way through the intricacy of female sexual complaints, trying to understand both the psychological and physiological aspects of the female sexual experience and how they influence one another. There is no magic pill to treat female dysfunction yet and the assessment by an experienced professional in itself is a powerful therapeutic intervention. Couples’ adherence to home exercises and their motivation to make a change is the key to success.

References