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Chapter 20
Classification, etiology, and key issues in Female Sexual Disorders

Graziottin A. Dennerstein L. Alexander J.L. Giraldi A. Whipple B.

Introduction

This chapter will summarize the leading characteristics of women's sexuality, to give a comprehensive view of the key factors in sexual health.[1, 12]. The most updated classification will be presented, with a focus on descriptors essential to qualify the disorders with a few questions [3]. Two concise paragraphs on ethical, legal and moral issues [1, 4-6] and on optimal referral will be presented [4, 7].

Leading characteristics of women's sexuality

Women's sexuality is *multifactorial*, rooted in biological, psychosexual and context-related factors. [1,3,4,7,8-16] The latter include couple dynamics, family and sociocultural issues and developmental factors, including sexual abuse [17-19].

Sexuality is also *multisystemic:* in men and women, a physiologic response requires the integrity of the hormonal, vascular, nervous, muscular, connective and immune systems: a fact too often overlooked in women, until recently [7, 15, 16, 20-25].

Three major dimensions: *Female Sexual Identity, Sexual Function and Sexual Relationship* interact to define women's sexual health [7, 15, 22]. Women's sexuality varies over the life cycle and is dependent on biological (reproductive events) as well as personal, current contextual and relationship variables [13, 26]. Female sexual problems are age related, progressive and highly prevalent, affecting up to 43% of women.[27, 28-31]. More importantly, a third to half of women who were defined as having a problem regarded the problem as distressful [30, 32]. These sexual problems appear to increase with both menopause and with age [33-37]. Sexual disorders, among both men and women, has been associated with poor quality of life, lower perception of well-being, lower self-esteem, poor self-image, poor relationship quality and depression and anxiety [38-40].

Female sexual problems may occur along a continuum from *dissatisfaction* (with potential integrity of the physiologic response but emotional/affective frustration) to *dysfunction* (with or without pathological modifications), to *severe pathology*, biologically rooted [26, 41]. *Pelvic floor disorders* are among the most important and yet neglected medical contributors to womens' sexual disorders [42-44].

Sexual dissatisfaction, disinterest and even dysfunction may occur in conjunction with Male Sexual Disorders or in the context of an abusive relationship. Female sexual problems should not all be labelled per se as "diseases" or dysfunctions requiring medical treatment [30]. Low levels of female sexual function may occur with or without significant personal (and interpersonal) *distress* [9, 30,

45]. For example, although female sexual function declines with age and incrementally with menopause [46], women become less distressed about low sexual function with age [47].

Sociocultural factors may further modulate the perception, expression and complaining modality – ie the "wording"- of a sexual disorder. The *meaning* of sexual intimacy is a strong modulator of sexual response and of the quality of satisfaction the woman experiences, in addition to physical response [4, 19, 48-50]. The quality of feelings for the partner, change in relationship status and length of the relationship also significantly affect female sexual function [9, 51].

Sexual problems reported by women are not discrete and often co-occur, *co-morbidity* being one of the leading characteristics of female sexual disorders [13, 26]. Co-morbidity between *FSD and medical conditions* - urological, gynaecological, proctological, dysmetabolic, cardiovascular and nervous diseases, to mention a few - is beginning to be recognized [15, 22, 44, 52, 53]. For example, latent classes analysis of sexual dysfunctions by risk factors in women indicate that urinary tract symptoms have a RR = 4.02 (2.75-5.89) of being associated with arousal disorders and a RR=7.61 (4.06-14.26) of being associated with sexual pain disorders, according to the epidemiological survey of Laumann and colleagues [27]. The attention dedicated to FSD related co-morbidities – both between FSD sub-types and between FSD and medical conditions –in this document reflects the clinical relevance of this association, especially in the urogynecological and proctological domains.

Psychiatric co-morbidity impacts sexual function to different degrees in each individual with past sexual trauma, eating disorders, histrionic personality disorder [54-58] having some impact on sexual function. Seventy percent of patients with depression report a decline in libido [59]. The greater prevalence of anxiety disorders (30.5% to 19.2%) and depressive disorders (21% to 13%) in women in comparison to men increases the importance for evaluation and treatment of psychiatric co-morbidity [60].

Classification of FSD

Over the last decades, classification of FSD has undergone intense scrutiny and revisions, which mirrors the new understanding of its complex etiology. Until a decade ago, the classification of FSD, which constitutes the frame of reference for an appropriate diagnosis, was focused almost entirely on its psychological and relational components. Indeed, FSD were included in the broader manual of "psychiatric" disorders [61, 62]. The first and second consensus conferences on FSD [3, 13] set out to define women's sexual disorders with special attention to bringing together the current level of evidence with definitions fitting women's wording and experiences. The latest classification is reported in Tab.1.

Clinical history

For a more comprehensive account of sexual concerns or complaints, health care providers should also investigate the so called "descriptors" of the disorders, as defined by the International Consensus Conferences held in 1998 and 2003 [3, 13]. They include:

a) **the etiology of the disorder**, further detailed in predisposing, precipitating and maintaining factors (Tab. 2a, 2b 2c) [15, 63-65]. Each category includes biological, psychosexual and contextual causes.

Biological descriptors include hormonal factors, pelvic floor disorders [43, 44], cardiovascular problems, neurological conditions (particularly pain related) [14, 66], metabolic disorders (diabetes, adrenal and thyroid dysfunction), affective disorders

and anxiety. All the medical conditions that may directly or indirectly affect sexuality, through their multisystemic impact and/or the consequences of pharmacologic, surgical and/or radiotherapeutic treatment, should be considered in the differential diagnosis of potential contributors to reported FSD. Decline in sex steroids, consequent to natural or iatrogenic menopause, is a major contributor to FSD [9, 47, 65].

Psychosexual descriptors refer to emotional/affective/psychic factors such as negative upbringing/losses/trauma (physical, sexual, emotional) [67, 68], body image issues [69], eating disorders affecting self-esteem and self-confidence, attachment dynamics (secure, avoidant, anxious) [17] that may also modulate the level of trust in the relationship and the intensity of the commitment, and the confidence in loving and long standing attitudes toward affective and erotic intimacy.

Contextual descriptors include past and current significant relationships [1, 68], cultural/religious restrictions [13, 26], current interpersonal difficulties [19, 70], partner's general health issues and/or sexual dysfunctions, inadequate stimulation and unsatisfactory sexual and emotional contexts [50];

b) **the disorder being generalised** (with every partner and in every situation) **or situational**, specifically precipitated by partner related or contextual factors, which should be specified [13, 26]. Situational problems usually rule out medical factors that tend to affect the sexual response with a more generalized effect [53, 71];

c) **the disorder being lifelong** (from the very first sexual experience) **or acquired** after months or years of satisfying sexual interaction. To ask the woman what in *her* opinion is causing the current FSD may offer useful insights into the etiology of the disorder, particularly when it is acquired [4];

d) **the level of distress**, which indicates a mild, moderate or severe impact of the FSD on personal life. Sexual distress should be distinguished from non-sexual distress and from depression. The degree of reported distress may have implications for the woman's motivation for therapy and for prognosis.

Physical examination

An accurate *physical* examination in any FSD complaint is important. The appropriate evaluation of potential medical factors, endocrinological, vascular, dysmetabolic neurological, neuroimmunological or iatrogenic factors, as well as the neglected role of pelvic floor disorders in contributing to and maintaining FSD, is essential to avoid both a systematic medical omission and a gender bias [1-7, 12, 17, 72-76]. What to look for while examining the patient and the key potential findings and associated co-morbidities will be detailed in each sub-chapter related to women's sexual problems. In addition, there is information concerning addressing FSD in both the HT and iatrogenic factor chapters.

Key point: An interdisciplinary team is a valuable resource for a patient-centered approach, both for diagnostic accuracy and tailored treatment. Disciplines that may take part in such a team of professional figures or be available for referral include medical sexologist, gynecologist, urologist, psychiatrist, endocrinologist, psychologist, anethesiologist, neurologist, proctologist, dermatologist, psychotherapist (individual and couple), sex therapist and physiotherapist. This latter professional is

emerging as a key resource in addressing pelvic floor disorders. Clearly not all are needed in any team or for a particular consultation**.**

Ethical, legal and counseling related considerations

All patients may have sexual interests or concerns, including the elderly, those with a disability and those with chronic illnesses. Wrong assumptions about disinterest about sex in the patient who is consulting for whatever medical reason would prevent the possibility of an open, frank, constructive and comforting conversation in the intimate area of sexuality and sexual health.

Basic training in human sexuality, focused continuing education and practice in counseling will give the clinician increasing confidence in dealing with sexual issues [4, 76].

A positive, proactive, empathic approach to the patients' sexual life needs to convey an attitude of availability and acceptance. This requires an honest self-awareness of the health care providers' areas of comfort and discomfort with sexual issues. It is easy to avoid asking important questions in an area in which the clinician may feel uncomfortable. It is important to be sure to address such issues in a way that is comfortable for both the clinician and the patient and yet effective in securing the necessary information [4, 76].

Health care providers should refrain from projecting their own values and attitudes onto those of the patient, either verbally or non-verbally. Doing so may reduce the patient's comfort and feeling of acceptance, and introduce inappropriate assumptions into the history [1, 4, 5].

Wording is important to ease communication: for example, one might ask: "How comfortable are you with masturbation?" rather than:" Have you ever masturbated?" This subject may be addressed with an opening statement such as: "Research has demonstrated that x% of people have masturbated at some point in their lives." Or, when addressing the emotionally loaded area of sexual abuse, it might be better to ask "Have you ever had an unwanted sexual experience?" rather than: "Have you ever been sexually abused?" [1, 4].

The health care provider should be aware that the topic of sexuality requires special attention to confidentiality and informed consent, depending on the profession of the clinician and on any local laws that place limits on confidentiality, such as in the reporting of sexual abuse [1, 4, 76].

While the discussion of sexual matters is often an appropriate part of medical evaluation and treatment, it is also important not to sexualize the clinical setting when it is not necessary. Patients may be confused or embarrassed by comments about their attractiveness, disclosure of intimate personal information by the clinician or by sex-related questions that are not clinically relevant and justifiable. It is essential to maintain appropriate boundaries with the patient [4-6].

The modesty of the patient should be respected in touching, disrobing and draping procedures [4]. Key aspects of appropriate counseling attitudes are summarized in Tab 3.

Key point: Information on the quality of sexual life should be recorded *before* any medical or surgical intervention, especially when systemic diseases are diagnosed. This will have two relevant consequences: give the patient the feeling that the clinician cares about this aspect of his/her life, but also prevent further litigation in case of an undiagnosed, neglected FSD, which could then be attributed to the clinician' negligence or malpractice, after whatever medical or surgical intervention, including assistance to operative delivery (see also the chapter on iatrogenic etiology of FSD).

Optimal Referral

Biological, psychosexual and couples issues may be differently relevant in the individual case and should be appropriately investigated in a careful history taking. Sexual disorders need a multidisciplinary approach, given the heterogeneity of etiological factors and the variety of co-morbidity, both in the medical and psychosexual domain [1-4, 7, 72-76].

One individual clinician could become skilled in all areas but often appropriate referral is required. (see Table 4). If the first health care provider diagnosing FSD is a physician, before referral, he/she should establish that the woman has one or more treatable sexual disorders, has been educated about the disorder(s), and tried a first line hormonal or other pharmacological approach, when indicated and if he/she feels competent in treating the potential biological contributors of her sexual complaint.

Generally, the woman should not currently be undergoing other significant medical interventions, so as to not overburden an already demanding emotional and physical situation. Other medical, lifestyle and relationship issues need to be addressed before specific sexual referral [4, 7, 75, 76].

The sexual symptoms as described by the patient can be summarized in the referral letter, along with the provisional diagnoses. Other medical problems, medications, past relevant medical and surgical interventions and important psychological and relationship issues should be included, together with detail management to date, plus outcome. It is helpful to end with expectations (treat, advise, educate, operate, etc) of the specialist and of the patient.

Such transfer of information gives the patient/couple the feeling of coordinated caring and confirms the legitimacy of their sexual complaints [4, 7].

Finally, it is well known that in the couple one member could be the symptom “carrier,” ie the person who actively disclose a personal sexual problem that could have been elicited by the partner’ sexual problem. In this dynamic, the latter is the “symptom inducer.” This is frequent in FSD reporting when the male partner primarily suffers from loss of desire, erectile deficits, and/or ejaculatory problems or general health issues [1, 4, 73, 74]. Evaluation of those potential co-factors of FSD and appropriate referral to specialists in Male Sexual Dysfunctions is an essential part of a comprehensive caring [1, 4, 7].

Conclusion

To address the complexity of FSD requires a balanced clinical perspective between biological and psychosexual/relational factors. Different contributors should be appropriately investigated in a careful history taking. A systematic, accurate *physical* examination in any FSD complaint is the most innovative factor to be included in a comprehensive medical diagnosis of FSD.

Apart from counseling, when the issue of FSD is openly raised by the patient, the health care provider can contribute to improving the quality of (sexual) life of his/her patients, by routinely asking them, during the clinical history taking: “*Are you happy with your sexual life*?” or "How's your sex life?” thus offering an overture to current or future disclosure.

Clinicians can help patients to communicate their sexual problems and concerns effectively by creating an atmosphere of acceptance and by clarifying communication. As sexuality is most often expressed in the context of a relationship, whenever possible, clinicians should take into consideration the history, need, values and preferences of *both* members of the couple. Appropriate referral is an integral part of a competent approach to FSD.

Finally, it should be acknowledged that for many women sex is motivated by love: attention to quality of couple's emotional intimacy is a key aspect of the clinical consultation when addressing FSD.

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TAB. 20.1 Classification of Female Sexual Disorders

Women's sexual interest / desire disorder

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 more than that due to a normative lessening with the life cycle and length of a relationship.

Sexual aversion disorder

Extreme anxiety and/or disgust at the anticipation of/or attempt to have any sexual activity

Subjective Sexual Arousal Disorder

Absence of or markedly diminished cognitive sexual arousal and sexual pleasure from any type of sexual stimulation. Vaginal lubrication or other signs of physical response still occur.

Genital Sexual Arousal Disorder

Complaints of absent or impaired genital sexual arousal. Self-report may include minimal vulval 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.

Combined Genital and Subjective Arousal Disorder

Absence of or markedly diminished subjective sexual excitement and awareness of sexual pleasure from any type of sexual stimulation as well as complaints of absent or impaired genital sexual arousal (vulval swelling, lubrication).

Persistent Sexual Arousal Disorder

Spontaneous, intrusive and unwanted genital arousal (e.g. tingling, throbbing, 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.

Women's Orgasmic Disorder

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

Persistent or recurrent pain with attempted or complete vaginal entry and/or penile vaginal intercourse.

Vaginismus

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

From R. Basson et al. [3]

Table 20.2a Predisposing factors contributing to female sexual dysfunction

A. Biological

- ✓ *Endocrine disorders (hypo-androgenism, hypoestrogenism, hyperprolactinemia, adrenal dysfunction, thyroid dysfunction, diabetes)*
- ✓ *Recurrent vulvovaginitis and/or cystitis*
- ✓ *Pelvic floor disorders: lifelong or acquired*
- ✓ *Drug treatments affecting biovailability of sex steroids or neurotransmitter levels*
- ✓ *Chronic diseases (cardiovascular, neurological or psychiatric diseases etc)*
- ✓ *Benign diseases (e.g., endometriosis) predisposing to iatrogenic menopause and dyspareunia*
- ✓ *Persistent residual conditions (e.g., dyspareunia/chronic pain associated with endometriosis)*

B. Psychosexual

- ✓ *Inadequate/delayed psychosexual development*
- ✓ *Borderline Personality traits*
- ✓ *Previous negative sexual experiences: sexual coercion, violence, or abuse*
- ✓ *Body image issues/concerns*
- ✓ *Affective disorders (dysthymia, depression, mania) and anxiety disorders*
- ✓ *Inadequate coping strategies*
- ✓ *Inadequate sexual education*

C. Contextual

- ✓ *Ethnic/religious/cultural messages, expectations, and constraints regarding sexuality*
- ✓ *Social ambivalence towards sexual activity, when separated from reproduction or marriage*
- ✓ *Negative social attitudes towards female contraception*
- ✓ *Low socioeconomic status/ reduced access to medical care and facilities*
- ✓ *Support network*

Modified from A. Graziottin, 2005 [75]

Tab 20.2b Precipitating factors contributing to female sexual dysfunction

A. Biological

- ✓ *Negative reproductive events (unwanted pregnancies, abortion, traumatic delivery with damage of the pelvic floor, child' problems, infertility)*
- ✓ *Post-partum depression*
- ✓ *Vulvovaginitis/Sexually Transmitted Diseases*
- ✓ *Sexual pain disorders*
- ✓ *Age at menopause*
  - o *Premature ovarian failure (POF) – menopause before age 40*
  - o *Premature menopause – menopause between age 40 and 45*
- ✓ *Biological vs. surgical menopause (especially for premature menopause)*
- ✓ *Surgical menopause*
  - o *Androgen (besides estrogen) loss*
  - o *Associated disorder/disease*
- ✓ *Extent and severity of menopausal symptoms & impact on well-being*
- ✓ *Current disorders*
- ✓ *Current pharmacological treatment*
- ✓ *Substance abuse (mainly alcohol and opiates)*

B. Psychosexual

- ✓ *Loss of loving feelings toward partner*
- ✓ *Unpleasant/humiliating sexual encounters or experiences*
- ✓ *Affective and anxiety disorders*
- ✓ *Relationship of fertility loss to fulfillment of life goals*

C. Contextual

- ✓ *Relationship discord*
- ✓ *Life-stage stressors (e.g., child's diseases, divorce, separation, partner infidelity)*
- ✓ *Loss or death of close friends or family members*
- ✓ *Lack of access to medical/psychosocial treatment and facilities*
- ✓ *Economic difficulties*

Modified from A. Graziottin, 2005 [75]

Tab 20.2c Maintaining factors of female sexual dysfunction

A. Biological

- ✓ *Diagnostic omissions: unaddressed predisposing/precipitating biological etiologies*
- ✓ *Untreated or inadequately treated co-morbidities:*
  - *Physical: pelvic floor disorders*
  - *Urologic: Incontinence, LUTS, urogenital prolapse*
  - *Proctologic: constipation, rhagades*
  - *Metabolic: Diabetes*
  - *Psychiatric: depression, anxiety, phobias*
- ✓ *Pharmacological treatments*
- ✓ *Substance abuse*
- ✓ *Multisystemic changes associated with chronic disease or secondary to menopause*
  - *Hormonal*
  - *Vascular*
  - *Muscular*
  - *Neurological*
  - *Immunological*
- ✓ *Contraindications to hormone therapy (HT)*
- ✓ *Inadequacy of HT in ameliorating menopause associated biological symptoms*

B. Psychosexual

- ✓ *Low or loss of sexual self-confidence*
- ✓ *Performance anxiety*
- ✓ *Distress (personal, emotional, occupational, sexual)*
- ✓ *Diminished affection for, or attraction to, partner*
- ✓ *Unaddressed affective disorders (depression and/or anxiety)*
- ✓ *Negative perception of menopause-associated changes*
- ✓ *Body image concerns and increased body changes (wrinkles, body shape/weight, muscle tone)*

C. Contextual

- ✓ *Omission of FSD investigation from provider's diagnostic and therapeutic approach*
- ✓ *Lack of access to adequate care*
- ✓ *Partner's general health or sexual problems or concerns*
- ✓ *Ongoing interpersonal conflict (with partner or others)*
- ✓ *Environmental constraints (lack of privacy, lack of time)*

Modified from A. Graziottin, 2005 [75]

Tab. 20.3 Talking with women patients about sexual issues

- Be empathic and matter-of-fact
- Use simple terms
- Be sensitive to the optimal time to ask the most emotionally charged questions
- Look for and respond to non-verbal cues that may signal discomfort or concern
- Be sensitive to the impact of emotionally charged words (e.g. ‘rape’, ‘abortion’)
- If you are not sure of the patient’s sexual orientation, use gender-neutral language in referring to his or her partner
- Explain and justify your questions and procedures
- Teach and reassure as you examine
- Clearly explain how to relax the pelvic floor *before* any pelvic examination (urological, gynecological, proctological) or exam (cystoscopy, speculum examination, colposcopy, anoscopy...)
- Intervene to the extent that you are qualified and comfortable; refer to qualified medical or mental health specialists as necessary

Adapted from Plaut et al. [4]

Tab. 20.4 Referral Resources

- Gynecologist with special interest in sexual dysfunction: when FSD requires specialized evaluation and/or treatment, specially hormonal
- Urologist or andrologist: when the partner has erectile or ejaculatory dysfunction that is assessed to require medical intervention
- Internist or family physician with special interest in sexual medicine: for sexual dysfunctions in either partner
- Oncologist: when HT is considered for cancer survivors with premature menopause
- Psychiatrist: when depression and anxiety are precipitated by or associated with FSD
- Certified Sex therapist: to address the specific psychosexual component of the woman's complaint, situational erectile dysfunction, either partner's orgasmic difficulties, as well as loss of sexual motivation in either partner (www.aasect.org)
- Couple therapist: when relationship issues are a primary contributor to the sexual dysfunction
- Individual psychotherapist: when personal psychodynamic issues are inhibiting sexual function
- Physical therapist: when hyper- or hypo-tonicity of pelvic floor is contributory.

Adapted from Plaut et Al. [9]