

KEYWORDS

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Female Sexual Dysfunction
Erectile Dysfunction
Ejaculatory Disorders
Libido
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Comprehensive Approaches to Sexual Health in Men and Women: A Clinical Perspective for Physicians

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ABSTRACT

Sexuality is a fundamental and lifelong aspect of human existence, profoundly influencing quality of life, psychological well-being, and interpersonal relationships. This article provides internal medicine specialists with a comprehensive overview of sexual health in both men and women, emphasising its intricate biopsychosocial nature and the multifaceted factors that can lead to dysfunction. We explore the biological, psychological, cultural, and socioeconomic dimensions of sexuality, discussing common dysfunctions such as erectile dysfunction, ejaculatory disorders in men, and desire, arousal, and orgasmic disorders in women. The impact of various medical conditions and pharmacotherapy on sexual function is also examined. The article advocates for a holistic, “amalgamated” therapeutic strategy, integrating medical, psychological, and lifestyle interventions. It highlights the crucial role of physicians in initiating open conversations, conducting thorough evaluations, and delivering empathetic care for sexual health concerns, thereby promoting overall patient well-being.

INTRODUCTION: SEXUALITY FROM CRADLE TO GRAVE

We are all sexual beings from cradle to grave. Sexuality, far beyond its reproductive implications, is a pervasive and evolving aspect of human life, deeply intertwined with identity, self-esteem, relationships, and overall quality of life. It is a continuous journey influenced by biological maturation, psychological development, and evolving social, cultural, and personal contexts. This article aims to provide internal medicine specialists with a comprehensive understanding of sexual health in both men and women, highlighting its clinical relevance and the importance of a holistic approach to patient care.

UNDERSTANDING SEXUALITY: A MULTIFACETED CONSTRUCT

Sexuality is a complex process, coordinated by the intricate interplay of the neurological, vascular, and endocrine systems. Beyond biology, it encompasses family, societal, and religious beliefs, which are continually shaped by ageing, health status, and personal experiences. Sexuality also deeply involves interpersonal relationships, with each partner bringing unique attitudes, needs, and responses. A breakdown in any one of these areas may lead to sexual dysfunction [1].

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CIRCLES OF SEXUALITY

BIOLOGICAL – SPIRITUAL – BEHAVIORAL
- CULTURAL – CLINICAL – MORAL –
PSYCHOLOGICAL – SOCIOECONOMIC – BIOLOGICAL
(Figure 1).

MALE SEXUALITY ACROSS THE LIFESPAN

Men remain sexually active from the phallic stage until death. Erection, for instance, starts in utero as early as 16 weeks of gestation and lasts a man's lifetime. While maximal during adult life (18–30 years), it declines continually thereafter but never ceases.

Sexual health is defined as the enjoyment of sexual activity of one's choice without suffering or causing physical or mental harm [2]. The key to sexual satisfaction is less about biology and more about psychology. Healthy sexuality is central to psychological well-being and overall quality of life.

THE CORE TRIAD OF MALE SEXUAL FUNCTION

An inextricably linked triad underpins normal male sexual function [3]:

- **Libido**
- **Erection**
- **Ejaculation**

A disturbance in any of these three components may lead to sexual problems. It is crucial to remember that the **brain (mind) is the most important sexual organ**. As the Latin adage states, "Mens agitat molem" – the Mind moves the body (read penis!).

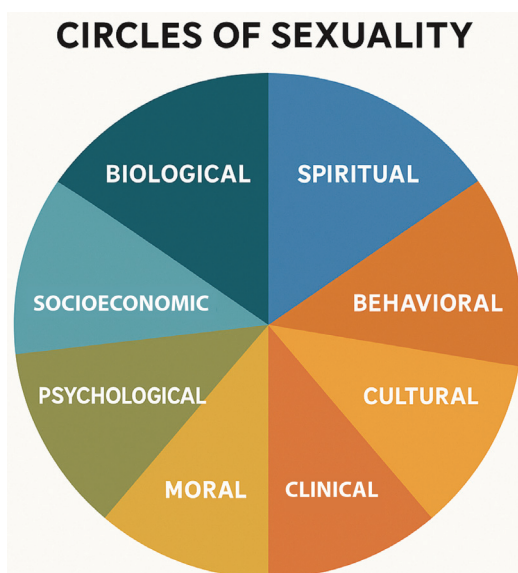


Figure 1. Circles of sexuality.

Sexual interaction involves two minds and two bodies. A disturbance in any one of these four components may lead to sexual problems.

IS SEX NECESSARY? AN EVOLUTIONARY PERSPECTIVE

The question of "Is sex necessary?" is a profound one. Birds do it, bees do it, and humans do it. Men pay a substantial physical, biochemical, and genetic price for sexual activity. The evolutionary origins and persistence of costly sexual reproduction remain one of biology's great enigmas. Initially, many species reproduced asexually. Over time, hermaphroditic (bisexual) organisms appeared, capable of both parthenogenetic and sexual reproduction, followed by sexual differentiation into distinct male (e.g., XY in humans) and female (e.g., XX in humans) sexes. The exact "how" and "why" of sex's evolution continue to be subjects of active scientific inquiry.

SEXUAL DYSFUNCTION: GENERAL CAUSES AND DRUG-INDUCED FACTORS

Sexual dysfunction in both men and women can stem from a variety of overlapping causes:

- **Biological/Organic:** Arteriogenic (vascular issues), neurogenic (nerve damage), hormonal imbalances (e.g., low testosterone, hyperprolactinemia, estrogen fluctuations), chronic illnesses (e.g., diabetes, cardiovascular disease, kidney failure, neurological disorders) [4,5].
- **Psychological:** Stress, anxiety, depression, performance anxiety, body image issues, past trauma, guilt, fear.
- **Relationship Factors:** Communication problems, unresolved conflicts, lack of intimacy, differing sexual expectations.
- **Sociocultural Factors:** Religious beliefs, cultural norms, societal pressures, and upbringing.

DRUGS CAUSING SEXUAL DYSFUNCTION

Over 200 drugs have been implicated in causing or contributing to sexual dysfunction in both sexes [6]. It is crucial for physicians to be aware of these potential side effects. Common culprits include:

- Antihypertensives (e.g., beta-blockers, diuretics)
- Antidepressants (e.g., tricyclic antidepressants, SSRIs)
- Antipsychotics (e.g., phenothiazines, risperidone)
- Anticonvulsants (e.g., phenytoin, carbamazepine)
- Antihistamines
- H2 receptor antagonists (e.g., cimetidine, ranitidine)

- Recreational drugs (including tobacco and alcohol)
- Statins

SEXUAL HEALTH IN MEN: COMMON DYSFUNCTIONS AND MANAGEMENT

Common Male Sexual Dysfunctions (Table 1)

- **Erectile Dysfunction (ED):** Inability to achieve or maintain an erection firm enough for satisfactory sexual intercourse [7] (Table 2).
- **Ejaculatory Disorders (Table 3):**
 - Premature Ejaculation (PME)
 - Delayed Ejaculation (DE)
 - Anejaculation (absence of ejaculation [AE])
 - Retrograde Ejaculation

Sexual Dysfunction (Presented As)	Number (N)
Erectile Dysfunction (ED) only	27
Anejaculation with ED	2
Premature Ejaculation (PME) with ED	2
Decreased libido with ED	9
Infertility with ED	6
Dyspareunia	2
Sexual concern	6
Ejaculatory disorders	18
Total	72

Table 1. Department of Reproductive Medicine (Feb'14 – Jan'15) Sexual Dysfunction Data [8].

Cause of ED	Number (N)
Decreased libido	9
Drug induced	5
Hyperprolactinemia	1
Wife - Vaginismus	6
Other sexual dysfunction (PME, AE, DE)	6
No identifiable cause	19
Total	46

Table 2. Causes of Erectile Dysfunction (ED) [8].

Ejaculatory Disorder	Number (N)
Primary anejaculation	5
Secondary anejaculation	4
Delayed ejaculation	1
Premature ejaculation	8
Total	18

Table 3. Ejaculatory Disorders [8].

- **Decreased Libido:** Reduced sexual desire.
- **Dyspareunia:** Pain during sexual intercourse (less common in men but can occur).

MANAGEMENT OF MALE SEXUAL DYSFUNCTION

Management strategies for male sexual dysfunction are diverse and often combined. An overview of the current understanding and management of sexual dysfunction is available.

- **Medical Therapy:** Primarily PDE5 Inhibitors (e.g., sildenafil [9] tadalafil) for ED. Other medications may be used for specific hormonal imbalances (e.g., dopamine agonists for hyperprolactinemia) or ejaculatory disorders (e.g., alpha-adrenergic agonists for retrograde ejaculation).
- **Intracavernosal Injection:** Alprostadil can be injected directly into the penis for ED.
- **Mechanical Vacuum Devices:** External devices to achieve erection.
- **Penile Prosthesis Devices:** Surgical implantation for severe, refractory cases of ED. Guidelines for the management of erectile dysfunction are available from authoritative sources [10].
- **Psychosexual Therapy:** Essential for addressing psychological components, performance anxiety, and relationship dynamics.

SEXUAL HEALTH IN WOMEN: COMMON DYSFUNCTIONS AND MANAGEMENT

Just as men are, women are also sexual beings from cradle to grave, with sexuality evolving through different life stages. Female sexual health encompasses aspects such as desire (libido), arousal, orgasm, and overall satisfaction, all of which contribute significantly to their quality of life. Definitions of sexual dysfunctions in women and men have been established by consensus statements [3].

Common Female Sexual Dysfunctions (FSDs)

FSDs are complex and multifaceted, often involving a combination of biological, psychological, and relational factors [11]. Key categories include:

- **Hypoactive Sexual Desire Disorder (HSDD):** Persistent or recurrent deficiency (or absence) of sexual fantasies and desire for sexual activity.
- **Female Sexual Arousal Disorder (FSAD):** Inability to achieve or maintain sufficient sexual arousal.

- **Female Orgasmic Disorder (FOD):** Difficulty, delay in, or absence of reaching orgasm following sufficient sexual stimulation.
- **Genito-Pelvic Pain/Penetration Disorder (GPPPD):** Persistent or recurrent difficulties with vaginal penetration, vulvovaginal or pelvic pain during intercourse, or fear/anxiety about pain. This often presents as dyspareunia.

Causes of FSDs

The aetiology of FSDs is often multifactorial, requiring a thorough biopsychosocial assessment [12].

- **Hormonal Changes:** Such as those occurring during menopause (estrogen decline, testosterone fluctuations), pregnancy, postpartum, or due to endocrine disorders.
- **Medical Conditions:** Chronic illnesses like diabetes, cardiovascular disease, neurological conditions (e.g., multiple sclerosis), thyroid disorders, and cancer.
- **Medications:** Like men, certain medications (e.g., antidepressants, antihypertensives, oral contraceptives) can significantly affect female sexual function [2].
- **Psychological Factors:** Stress, anxiety, depression, body image issues, relationship conflicts, history of sexual trauma, and cultural inhibitions.
- **Surgical Interventions:** Procedures affecting pelvic anatomy or nerve supply.

Management of FSDs

Management of FSDs requires a holistic and individualised approach:

- **Addressing Underlying Medical Conditions:** Optimising management of chronic diseases, reviewing medications, and addressing hormonal imbalances (e.g., local estrogen therapy for genitourinary syndrome of menopause).
- **Psychosexual Therapy/Counselling:** Crucial for addressing psychological barriers, improving communication, and developing coping strategies. This may include cognitive behavioural therapy (CBT) or mindfulness-based approaches.
- **Pharmacological Options:** Limited but include flibanserin and bremelanotide for HSDD in premenopausal women, though their use requires careful consideration of side effects and efficacy [13].
- **Lifestyle Modifications:** Promoting overall health through diet, exercise, stress reduction, and adequate sleep can positively affect sexual well-being.

- **Physical Therapy:** Pelvic floor physical therapy can be highly effective for GPPPD.
- **Relationship Counselling:** Addressing couple dynamics is often essential for improving sexual satisfaction.

Internal medicine specialists play a vital role in starting these conversations, performing initial evaluations, and referring to specialists (e.g., gynaecologists, urologists, sex therapists) when necessary, ensuring that female patients receive comprehensive care for their sexual health concerns.

HOLISTIC MANAGEMENT OF SEXUAL HEALTH

In our clinical practice, it is often necessary to employ an “**amalgamated**” **therapeutic strategy** rather than relying on a single method to overcome sexual problems. This comprehensive approach integrates proper medical interventions, surgical procedures (when indicated), psychosexual therapy, counselling, and marital therapy. The most crucial management, however, is often **lifestyle modification**. Overweight and Obesity affect sexual function in both sexes, particularly in men, who usually experience Erectile Dysfunction and in women, body image problems. Promoting a healthy diet, regular physical activity, stress management, adequate sleep, and cessation of harmful habits (e.g., smoking, alcohol, recreational drugs) can significantly improve sexual function and overall well-being for both men and women. Physicians should feel empowered to start these sensitive discussions, recognising sexual health as a critical component of holistic patient care.

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REFERENCES

- [1] Heiman JR. Sexual dysfunction: an overview of the current understanding and management. *J Sex Med.* 2009;6(Suppl 6):268–278.
- [2] World Health Organisation. Defining sexual health: Report of a technical consultation. WHO Press; 2006.
- [3] McCabe MP, et al. Definitions of sexual dysfunctions in women and men: a consensus statement from the fourth International

- Consultation for Sexual Medicine 2015. *J Sex Med.* 2010;13(10):1353–1365.
- [4] Shabsigh R, et al. Sexual dysfunction in men with chronic kidney disease: a systematic review. *Am J Kidney Dis.* 2005;45(5):814–826.
- [5] Laumann EO, et al. Sexual dysfunction in the United States: prevalence and predictors. *JAMA.* 1999;281(6):537–44.
- [6] Montejo AL, et al. Drug-induced sexual dysfunction: a systematic review of the literature. *J Clin Psychopharmacol.* 2015;35(4):405–415.
- [7] Rosen RC, et al. The International Index of Erectile Function (IIEF): a multidimensional scale for assessment of erectile dysfunction. *Urology.* 1997;49(5):822–830.
- [8] Department of Reproductive Medicine, Chettinad Health City. Internal Clinical Data; 2014–2015.
- [9] Goldstein I, et al. Oral sildenafil in the treatment of erectile dysfunction. *N Engl J Med.* 1998;338(20):1397–1404.
- [10] American Urological Association (AUA). Guideline for the Management of Erectile Dysfunction; 2018.
- [11] Basson R, et al. Report of the International Consensus Development Conference on Female Sexual Dysfunction: Definitions and Classifications. *J Urol.* 2000;163(3):888–893.
- [12] Derogatis LR, et al. The Female Sexual Function Index (FSFI): a multidimensional self-report instrument for the assessment of female sexual function. *J Sex Marital Ther.* 2002;26(2): 141–155.
- [13] Clayton AH, et al. Flibanserin for Hypoactive Sexual Desire Disorder in Premenopausal Women: A Review of Clinical Efficacy and Safety. *CNS Drugs.* 2017;31(12):1017–1029.