Non-Pharmological Management of Sexual Dysfunction in Females

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ABSTRACT

Sexuality is a major part of human existence. There are three principle stages of sexual response cycle - desire, arousal and orgasm and females are affected by various dysfunctions related to each stage. There are wide range of etiological factors contributing to these disorders Treatment involves a wide range of pharmacological and psychological approaches. There is a lack of literature on the non pharmacological measures for treatment of female sexual dysfunctions. This review article focuses on the available and effective non pharmacological therapeutic approaches to female sexual disorders.

KEYWORDS: Anorgasmia, Arousal, Dyspareunia, Vaginismus, Female sexual dysfunction, Non pharmacological management

1. INTRODUCTION

Sexuality is considered a taboo in India and female sexuality even a greater taboo [1]. Although beautiful paintings in Ajanta-Ellora, Khajuraho caves and several other Indian temples, made many centuries ago, depict human sexuality and even female sexuality in different forms. They provide the message that all aspects of human life need to be celebrated and expressed, so it is really an enigma how gradually sex acquired its taboo and became a matter of shame in modern era. As male sexual dysfunction is quite apparent because of incapacity for erection or erectile dysfunction or even premature ejaculation, female sexual dysfunction is not so apparent, so besides being a taboo and due to conservative tradition, even the lack of being apparent make it even rarer entity to be reported or studied unless the symptoms become debilitating. We are here in 21st century and gradually women are opening up regarding the sexual practices, knowledge, awareness and even their sexual health and dysfunctions but still this area is relatively unexplored in comparison to male sexual dysfunctions and other areas of human physiological behaviour [2]. So here we are to discuss the management of female sexual dysfunctions particularly pertaining to their non-pharmacological management. The World Psychiatric Association has defined sexual health as “a dynamic and harmonious state involving erotic and reproductive experiences and fulfilment, within a broader physical, emotional, interpersonal, social and spiritual sense of well-being, in a culturally informed, freely and responsibly chosen and ethical framework not merely the absence of sexual disorders” [3].

1.1 The Sexual Response Cycle

Master and Kaplan pioneering work revealed that in both sexes the sexual response cycle is often categorised in four phases of desire, excitement, orgasm and resolution [4].

The first stage is of sexual desire which consists of motivational or appetitive aspects of sexual response. Sexual urges, fantasies and wishes are included in this phase. The sexual excitement is the second stage in which subjective feeling of sexual pleasure and accompanying physiological changes occur (penile erection in males, vaginal lubrication in females). Plateauing is sometimes categorised as a distinct phase of heightened state of excitement attained with continued stimulation with marked sexual tension setting the stage for the orgasm. The third stage is of orgasm or climax defined as the peak of sexual pleasure, accompanied by rhythmic contractions of the genital musculature in both males and females. There can be different patterns of orgasms in females which is followed by rapid resolution phase. Then there is refractory period in males, which is generally absent in females [5].

1.2 Concept of female sexuality

In India, many females do not like to appreciate erotic aspect of conjugal life and even do not have names for their genitals [5].

Though the perception of modern Indian women is transforming, many of them still consider the sexual activity a duty, an experience to be submitted to, often from a fear of abuse [6].

As per Sigmund Freud, both sexes seem to pass through the early phases of libidinal development in the same way. Psychological differences between male-female sexuality begins during phallic phase, with the appearance of Oedipus Complex, however the difference becomes most clear only during the genital phase.

1.3 Aetiology of female sexual dysfunction

Worldwide, female sexual dysfunction (FSD) is a highly prevalent problem for 38%-63% of women [2]. Prevalence in different stages of sexual cycle in many western studies are low sexual interest 17% to 54.8% [7,8,9,10,11,12] impaired arousal 12.2% to 17.0% [9, 13], impaired lubrication 2.6% to 31.2%, impaired orgasm 3.7% to 28.6%, pain 3.4% to 20.3%. Mostly females in India consider themselves to be passive partners and there is very less awareness regarding female sexual dysfunction and there is always under reporting because of social stigma. It is noteworthy that in one of the studies none of the affected participants volunteered for treatment of any diagnosable sexual disorder [14,15]. As per many Indian studies, female sexual dysfunction prevalence was found in

majority of sexually active fertile females [16].

The more specific aetiological factors can be considered using the 'three windows approach' [17].The first window-the current situation, the second window-vulnerability of the individual like negative attitude, need to maintain self-control, earlier experiences of sexual abuse or trauma, propensity to sexual inhibition (The Dual Control Model) [18], the third window-health related factors that alter sexual function like mental & physical health, damage to neural control of genital response, endocrine mechanism alteration, metabolic disorders, medication side-effects, anti-depressants, anti-psychotics, anti-hypertensives [11], Age [2], psychological factors like stress, conflicts, depression, anxiety, interpersonal factors, literacy, socio-economic status, educational status [19],

ICD 10	DSM-5
1. Lack or loss of sexual desire: as a principal problem, initiation of sexual activity less likely	1. Not listed
2. Sexual aversion and lack of sexual enjoyment: prospect of sexual interaction associated with negative feelings, fear , anxiety leading to its avoidance, lack of appropriate pleasure inspite of normal sexual responses and orgasm, including anhedonia (sexual)	2. Not listed
3. Failure of genital response: vaginal dryness or failure of lubrication, psychogenic , pathological (infection), oestrogen deficiency, includes female sexual arousal disorder	3. Sexual interest/arousal disorder: three out of six absence of interest or initiation, unreceptiveness in sex,even to internal or external cues,absent thoughts or fantasies,genital or non-genital sensations
4. Orgasmic dysfunction:absent or delayed orgasm, may be situational, psychogenic , invariable due to physical or constitutional factors	4. Female orgasmic disorder:marked delay, infrequency or absence of orgasm and/or markedly reduced orgasmic intensity
5. Non organic vaginismus: perivaginal muscular spasm making enile entry impossible or pain, local cause of pain to be excluded	5. Vaginismus (not due to general medical condition)
6. Nonorganic dyspareunia: pain during sexual intercourse, considering only emotional factors, excluding local pathology or other primary sexual dysfunctions like vaginismus	6. Genito-pelvic pain/penetration disorder:one or more of persistent or recurrent difficulties in vaginal penetration,may due to pelvic or vulovo-vaginal pain or tightening of pelvic floor muscles, associated fear and anxiety in anticipation, during or as a result of the act
7. Excessive sexual desire: excessive sexual drive usually in late teenage or early adulthood, excluding early dementia or affective disorders	7. Not listed
8. Other sexual dysfunction not caused by organic disorder or disease	8. Other specified sexual dysfunction: specific reason to be mentioned like sexual aversion
9. Unspecified sexual dysfunction not caused by organic disorder or disease	9. Unspecified sexual dysfunction: in case of insufficient information to make more specific diagnosis
10. Not listed	10. Substance / medication-induced sexual dysfunction: temporal correlation with substance intoxication, withdrawal or exposure

Table No.1: Classification of female sexual dysfunction

cultural factors, duration of marital status, even marital status [10] , medical (like thyroid dysfunction, hypertension but diabetes found to be more contributory), and gynaecological disorders (PID, endometriosis, fibroid, uterine prolapse), surgical procedures like hysterectomy [20], medicines, have all been implicated in female sexual dysfunction in various studies [21].

2. EVALUATION

For proper management of females with sexual dysfunction, complete evaluation is essential.It includes history taking (sexual, medical and psychosocial), physical examination, laboratory tests (routine and specific) and referrals from other specialists. A proper history taking is essential for finding out the aetiology and minimising the need for investigations.

2.1.1 Sexual history

Make patient comfortable
Non judgemental attitude
Ensure confidentiality
Know patient's cultural background [22]
Basic questions [23-27] should include details of:

- Libido/interest
- Arousal/performance
- Orgasm/satisfaction
- Pain/vaginismus

Areas such as sexual fantasy, masturbation, genital functioning, and contraception should be explored as it can give great insight into the problem [27,28]. It is essential to know the site, type, severity, onset, duration of pain. Repeated pain can lead to lack of arousal, failure to achieve orgasm, and loss of sexual desire. A history of time spent in various activities should be enquired.

2.1.2 Psychosocial history

A detailed sexual history questionnaire exploring current sexual interactions, social and sexual discord, history of sexual abuse or trauma, gender identity conflicts and preferences, state of mood and affect, and cultural and religious influences is useful. Such questionnaires are helpful in identifying psychological contributions to sexual dysfunction. The questionnaires can also provide indicators for problematic personality features, comorbid affective disorders, poor sexual knowledge and marital discord.

Symptoms of anxiety or depression, altered self-esteem and coping skills, past and present partner relationships, history of sexual trauma/abuse, occupational and social stresses, economic status, and education should be assessed. Given the interpersonal context of sexual problems in men and women, the clinician should carefully assess past and present partner relationships.

Another important aspect of psychosexual history is inquiring specifically about the quality of the relationship between the couple with respect to nonsexual factors.Lastly, expectations from the treatment should be taken into consideration [22].

2.1.3 Medical history

While evaluating women careful medical history should be obtained about any health problem that might affect sexual anatomy, the vascular system, the neurological system, and the endocrine system. Indirect causes i.e., factors that cause chronic pain, fatigue, and malaise may interfere with the vascular and neurological pathways can cause dyspareunia [24].

2.2 Physical Examination

In females, genital examination is often highly informative, especially in cases of dyspareunia, vaginismus, with a history of pelvic trauma and with any disease potentially affecting genital health. When the history indicates, the opportunity for Pap smear/STD investigation should be taken [26, 28-31].

2.3 Recommended Laboratory Testing

Recommended laboratory tests for women with sexual problems typically include fasting glucose, cholesterol, lipids hormonal profile and X-ray spine for spina bifida. Additional laboratory tests (e.g., thyroid function) may be performed at the discretion of the clinician, based on the medical history and clinician's judgment.

When an infective etiology for dyspareunia remains possibility, vaginal, cervical and vulval discharge microscopy/cultures should be performed [28, 30-35]

2.4 Specialist Consultation and Referral

Patients with history of medical problems should be referred to appropriate speciality to evaluate the organic cause [22].

Female Sexual Function Index (FSFI) [36] is a questionnaire that can be easily used by health professionals to complement the diagnosis and to detect treatment-related changes. The FSFI recognizes the need for a subjective criterion in defining sexual dysfunction and determines, through the nineteen item answers, five separate domains: (a) desire/arousal, (b) lubrication, (c) orgasm (d) satisfaction and (e) pain. Another questionnaire widely used is the sexual history form. This instrument, through 28 items, evaluates the frequency of sexual activity, desire, arousal, orgasm, pain and overall sexual satisfaction for women and men [37].

3. NON- PHARMACOLOGICAL MANAGEMENT OF FEMALE SEXUAL DISORDER

Management of sexual dysfunction follows a patient centric approach. After evaluation of the condition, understanding the relationship issues, screening for sexual knowledge of the patient, a possible etiological basis of the dysfunction is reached. The aetiology could be purely organic, purely

psychological or both. Also there could be a co morbid psychiatric condition which could be primary or secondary. In case, the condition is purely organic, referral is made to appropriate specialist.

In case the psychiatric condition is primary, treatment of the condition assumes priority. If the condition is psychological and the patient has a high motivation and adequate psychological sophistication then a non pharmacological approach or a combination of pharmacological and non pharmacological approach is taken [22].

Once the diagnosis is made after detailed assessment the process of treatment is initiated.

The basic principles of treatment are as follows:

-The selection of the treatment, in most cases is as per patients' choice.
-The professional helps the patient make a choice.
-The professional is expected to provide all details of the treatment options to the patient in a way that can be fully understood by the patient.
-In the absence of a partner , no patient should be refused.
-The treatment goals should be fixed at the outset.
-Detailed information of the treatment chosen and the contact person in case of problems encountered should be fixed beforehand [38].

After a detailed history, physical and laboratory investigations and requisite consultation, the couple/ patient must be explained about their problem and the possible factors contributing to it. It is always preferred that after the entire issue is discussed the feedback of it should be taken [39].

3.1 Treatment Options

3.1.1 General measures

The general measures for treatment of sexual dysfunction include Sex Education and Relaxation training. These are the measures which are found to be useful in all cases, immaterial of the type of dysfunction. Some consider that the process of sex education and relaxation should be carried out over 4 sessions [22].

3.1.1.1 Sex Education

This the first step and it aims to provide accurate information and thereby reducing the anxiety, dispelling any associated myths or any unrealistic expectations that one may have and finally normalizing the experience. Among the various manuals for sex therapy, Avasthi and Banerjee (2002) have had a manual made for patients from the Indian subcontinent [40].

The important ingredients of sex education [22] are as follows:

A detailed knowledge about the sex organs, puberty, menstruation, pregnancy

in females and should be provided. Also other issues like stages in sexual intercourse and the normal sexual response is to be discussed.

-The couple/ patient should be explained about the normal variation from person to person on matters of sexual desires.
-Knowledge on the importance of timing the sexual activity.
-How to say no to the partner and how to accept the refusal from a partner gracefully without any sense of insult.
-Education about masturbation.
-Helping shy individuals to initiate sex.
-Encouraging patients to express their needs and the type of stimulation they like before and after orgasms.
-Help them know about multiple orgasms.

An important part of sex education is identifying the sexual myths in a person and to address those. The commonest myths [22] include:

-Women should not initiate sex as men should be the leader and initiator
-A woman should not enjoy sex and should not masturbate.
-A woman should never say no when her partner approaches her for sex
-All physical contact should lead to sex and sex means intercourse.
-Good sex always leads to wild orgasms
-Sex happens naturally .
-If the sex is not good it implies that the relationship has some problems.

3.1.1.2 Relaxation

Relaxation is also considered a general measure in the management of sexual dysfunction. Jacobson progressive muscular relaxation combined with Biofeedback may be used for objective assessment of anxiety and mastering it.
There are different therapies used for sexual dysfunctions like psychodynamic, rational emotive, interpersonal, systematic desensitization, Master and Johnson's behaviour therapy.
Many therapists use terminology used by Master and Johnson for homework assignment. It consists of three stages. The first stage is known as nongenital sensate focus consists of touching your partner without genital contact and for your own pleasure. The second stage, genital sensate focus, consists of caressing in a sexual and arousing way and to encourage the couple to be more open about their feelings and desires and stage three consists introduction of sexual intercourse into therapy.
There are also certain models prescribed for better management of females with sexual dysfunctions like TOP model prescribed in Gynaecological setting for better management of females with sexual dysfunctions. It consists of 3 stages, where in the first stage, the gynaecologist teaches about the physiology of female sexual responses. The second stage consists of orienting women towards sexual health and about the concept sexuality and the third stage consists

permitting and stimulating sexual pleasure which is based on the idea that sexual pleasure is a right and is essential for emotional and physical health of everyone [41].

3.1.2 Treatment of specific dysfunction

3.1.2.1 Impaired sexual interest in females

- Group therapy in conjunction with orgasm consistency training, which consists of directed masturbation and sensate focus exercises [42].
- A comprehensive program of multimodal cognitive behavioural approach which entails sexual intimacy exercises, sensate focus, communication skills training, emotional skills training, reinforcement training, cognitive restructuring, sexual fantasy training and couple sex group therapy [43].
- Multistage treatment approach combines a lot of the concepts mentioned below like assessment, affectual awareness, insight and understanding, cognitive, systemic and behavioural therapies.
- Affectual awareness training: To identify negative emotions through techniques such as list making, role-playing, and imagery
- Insight and understanding: To educate couples about their feelings using a variety of strategies like gestalt therapy and transactional analysis
- Cognitive and systemic therapies are included to provide coping mechanisms as well as to resolve underlying rational problems
- Behavioural therapy is aimed at initially improving nonsexual affectionate behaviour with an eventual goal of introducing mutually acceptable sexual behaviour.

3.1.2.2 Arousal disorder

There is not clearly validated treatment for this disorder. However sensate focus, Cognitive behaviour therapy, systematic desensitization, individual and couple therapy, directed masturbation and communication skills has seen to yield moderate results.

Besides these measures there have certain devices like Eros Clitoral Therapy Device (Eros CTD), has been found to be effective. This device increases the blood flow to the clitoris with gentle suction [45,46]. Two short term studies have found it useful in sexual arousal disorder [46,47]. Also dyspareunia associated with diminished desire may decrease when lubrication is improved [48].

3.1.2.3 Sexual aversion disorder

A detailed assessment of any trauma, rape and relationship issues should be done. General behavioural measures like relaxation, sex education, clarification of myths and sensate focus is useful. Usually couple and individual therapy and

behavioural therapy by way of progressive exposure to feared stimuli is used.

3.1.2.4 Orgasmic disorder

Treatment usually includes correcting any negative attitudes towards ones' body and towards sex and encouraging positive sexual attitudes. Teaching self pleasuring exercises, masturbation with vibrator, enhancing fantasy, Kegel's exercise to facilitate orgasms, reducing anxiety with sensate exercises [49].

In a study by Wincze and Caird, a comparison was made between standard systematic desensitization versus video desensitization. It was found that video desensitizing was more effective however only 25% of in orgasmic women were able to achieve orgasm at the end of treatment. It was felt that directed masturbation training program along with desensitization would be more effective [50].

3.1.2.5 Dyspareunia

This is one of the areas which has been grossly ignored and vaginal dilation has been used most widely. Here the various general measures and sensate focus, sex education is used. Other measures like positive self talk, progressive muscle relaxation prior to sexual activity, physical therapy which include Kegel's exercise with relaxation and biofeedback has been found to be of some use [51]. Also it is seen that information about suitable intercourse positions was also useful.

3.1.2.6 Vaginismus

Correcting any negative attitude towards sex or any myths and sex education is essential. Specific management involves first helping the women develop positive attitude towards her sex organs, then moving on to pelvic muscle exercises, to vaginal penetration and vaginal containment to movement during vaginal containment. Cognitive behaviour therapy has been found to be most effective in these cases [3].

Just as the planning of the therapy should be done in detail so also the termination of treatment should be planned much in advance, infact at the beginning of the therapy and the patient should be well aware of the plan. During the later part of the therapy the interval between the sessions can be extended and a formal plan in case of relapse and follow up should be made.

4. CONCLUSION

Though we are in the 21st century, yet in some culture such as ours, discussion on female sexuality and sexual dysfunction seems to be a taboo. The process of management of female sexual dysfunctions is complex and involves,

detailed history, examination, investigations in addition to assessing their knowledge, myths and psychological orientation. Once these things have been done a plan of treatment is made in consultation to the patient. Still, medical research in this field is very deficient. Most of the studies in our country on sexual dysfunctions are hospital based and hardly any of them are community based and there are still fewer studies on female sexual dysfunctions. There is lack of studies in the management of sexual dysfunctions and non pharmacological management is also a much neglected area. There is strong need to perform different studies in this area to find out other effective means for management of female sexual dysfunctions.

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