



### Original Article

## Female sexual dysfunction and its relationship with marital satisfaction in Indian women

Authors

Dr Geeta Soohinda S.<sup>1</sup>, Dr Harshavardhan Sampath<sup>2</sup>, Dr Megha Sarakshi Chaddha<sup>3</sup>,  
Dr Sanjiba Dutta<sup>4</sup>

<sup>1,2,4</sup>Department of Psychiatry, Sikkim Manipal Institute of Medical Sciences, Gangtok

<sup>3</sup>Tripolia Social Service Hospital, Patna

Corresponding Author

Dr Harshavardhan Sampath

Department of Psychiatry, Sikkim Manipal Institute of Medical Sciences, Gangtok

Phone number -9894967703, Email: [drharsha79@yahoo.co.in](mailto:drharsha79@yahoo.co.in)

### Abstract

**Background:** Female sexual dysfunction (FSD) is a common under reported problem with significant impact on inter personal relationships and quality of life of women. In Asian countries studying female sexuality in marital relationships is important to determine the true extent of the problem and deliver proper treatment.

**Aim:** To study female sexual dysfunction in relation to marital satisfaction in Indian women.

**Materials and Methods:** 150 married healthy Indian women were administered Female Sexual Function Index (FSFI) and Female sexual distress scale- revised (FSDS-R) to determine the extent of sexual dysfunction in these women. Locke Wallace marital satisfaction scale was given to find out the association between sexual dysfunction and marital satisfaction.

**Results:** 11 (7.33%) women were diagnosed to suffer from FSD. Younger age and lesser duration of marriage were associated with the development of sexual dysfunction. Orgasmic difficulty (53.33%) was the most common form of dysfunction reported by our sample, followed by trouble with arousal (24%) and lack of desire (19.33%). Subjects with FSD reported a significantly lower marital satisfaction than those without FSD.

**Conclusion:** Though sexual difficulty is common in Indian women, distress is less common. Without relational and cultural context epidemiological studies on sexual dysfunction especially in India are inadequate.

### Introduction

Sexuality has been a topic of interest to artists and scientists alike since the middle ages. However, female sexuality has long been over shadowed and suppressed for moral and social reasons. We have

come a long way in understanding female sexuality and its dysfunction. Nevertheless, female sexual dysfunction (FSD) is a common under reported problem with significant impact on inter personal relationships and quality of life of women. The

World Health Organization (WHO) defines sexual dysfunction as “the various ways in which an individual is unable to participate in a sexual relationship he or she would wish”<sup>1</sup>. It includes disorders of sexual desire, arousal, orgasm and sexual pain, leading to distress. In order to enhance clinical research, the Diagnostic and Statistical Manual of Mental Disorders fifth revision (DSM 5) added frequency and severity criteria for the diagnosis of FSD of female sexual dysfunction.<sup>2</sup>

The aetiology of sexual dysfunction is complex and multifactorial involving general physical and mental well-being, quality of relationship, past sexual functioning and various socio-demographic and cultural factors. Although the field of FSD has seen advancement in the recognition of prevalence and risk factors worldwide, data from India has been sparse.<sup>3</sup> India, being patriarchal society, gender disparity is still prevalent with discouragement of sexual relationship outside context of marriage. Hence, FSD in the Indian scenario can be better studied and explored in the context of marital relationships. We wanted to understand the prevalence of FSD and how it contributed to marital dissatisfaction, a topic not previously studied in the Indian context.

### Methodology

We used a quantitative, cross-sectional study design on a sample of 150 married women who accompanied patients to the hospital for gynaecological problems. It must be stressed that the sample were apparently healthy married women who had been living with their spouse for a minimum of 3 months before entry into the study. Divorced, widowed and pregnant women, women with major psychiatric illness, medical, surgical or gynaecological disease that could hamper sexual activity were excluded. Women whose spouse were suffering from major mental illness or critically illnesses were also excluded.

Data for the study was collected by interviews using the following instruments after voluntary, written informed consent.

1. Socio-demographic data: Age, education, occupation, income, religion and duration of marriage.

2. Medical/Gynaecological/Sexual data: Frequency of intercourse, menstrual cycles, parity, mode of last delivery, contraception use, urinary tract infections, chronic disease, major mental illness in participant, and stressful life events were noted.

3. Female Sexual Function Index (FSFI)

The FSFI is a 19-item multidimensional, self-report questionnaire for assessment of female sexual function. The FSFI evaluates six domains of sexual functioning during the last 4 weeks viz., desire, arousal, lubrication, orgasm, satisfaction and pain during sexual intercourse. It takes approximately 15 minutes to complete and items are scored on a Likert type scale.<sup>4</sup> Wiegel M et al., have suggested diagnostic cut-off scores of 26.55 to be optimal for differentiating women with and without sexual dysfunction.<sup>5</sup> For individual domains, a score of less than the median value was considered sexual dysfunction for each domain. Thus, sexual dysfunction for each domain was positive in the presence of desire score of < 3.6 (score range 1.2–6), arousal score of < 3.9 (score range 0–6), lubrication score of < 3.6 (score range 0–6), orgasm score of < 3.6 (score range 0–6), satisfaction score of < 3.6 (score range 0–6) and a pain score of < 4.4 (score range 0–6).

4. Female Sexual Distress Scale- Revised (FSDS-R)

The FSDS is a 13 item scale that assesses the distress associated with sexual problems. Both severity and frequency of distress and are scaled on a 5-point Likert scale.<sup>6</sup> A score of  $\geq 11$  effectively discriminates between women with and without distress with higher scores indicating greater distress due to sexual dysfunction.

Female Sexual Dysfunction in the present study is operationally defined as subjects with impaired sexual functioning (FSFI scores  $\leq 26.55$ ) along with significant distress due to their dysfunction (FSDS-R scores  $\geq 11$ ).

### 5. Locke-Wallace Marital Satisfaction Scale

A 15 item scale that measures marital satisfaction among couples, with higher scores implying greater satisfaction.<sup>7</sup>

### Statistical analysis

All statistical analyses were performed using MINITAB 17 software. Descriptive statistics was used to display baseline sample characteristics. Independent t test were used to compare parametric sexual function scores. In skewed data, we used Mann-Whitney test. Probability values of  $< 0.05$  were considered statistically significant.

### Results

We collected data from 150 married Indian women having an active sexual life. The mean age of the sample was 29.14 years (SD 7.25) with marital duration of 5.03 years (SD 6.20). Most of the women were educated till high school or university (78%). Nearly half of them were homemakers (46%) with salaried, self-employed and daily wage earners contributing to 24%, 8.67% and 20.66% respectively. Majority belonged to Hindu (60%) and Buddhist (28%) religions. Mean years into marital relationship was 5.02 years (SD 6.2). (Table 1)

Gynecological history revealed that the majority of the sample had regular menstrual cycles (93.33%) and no evidence of urinary tract infection (74.67%). Most of the subjects were nulliparous (54%) and in those with children, normal vaginal delivery was most common (29.33%) mode of delivery. About one fourth did not use any contraception (24%) and the rest used oral contraception (24%), barrier method by spouse (19%) or intrauterine device (27%). 6% of the sample had permanent contraception done. 25 women (16.67%) were suffering from chronic medical diseases like hypertension, diabetes or bronchial asthma. Majority of the subjects did not report any recent stressful life events (98%). (Table 1)

Self-reported factors that interfered with sexual intimacy were fatigue/not enough time ( $n=3$ ), headache/body ache after intercourse ( $n=2$ ) and lack

of appropriate surroundings ( $n=1$ ).

Out of 150 females, 30 scored low on Female Sexual Function Index ( $\leq 26.55$ ) to be classified as having impaired sexual functioning. Out of these 30, 11 scored positive for sexual distress (FSD-R scores  $\geq 11$ ). Hence using the operational definition of FSD i.e., both impaired sexual functioning and sexual distress, 11 (7.33%) women were diagnosed to suffer from FSD.

The mean FSDS-R scale scores for the sample of 150 subjects was 3.70(SD=5.08). Sexual distress was greater in females with sexual dysfunction (FSDS-R mean score 14.24, SD=4.63) than those without dysfunction (FSDS-R mean score 2.361, SD=3.23).

Age and duration of marriage were associated with the development of sexual dysfunction. Women with sexual dysfunction were significantly younger than those without dysfunction (mean years (SD) 29.45(7.43) than those with dysfunction ( $M=25.36$ ,  $SD=1.96$ ),  $t(41)=4.72$ ,  $P=0.00$ ).

Similarly, mean years of duration of marriage in those without dysfunction ( $M=5.21$ ,  $SD=6.39$ ) was significantly more than those with sexual dysfunction ( $M=2.73$ ,  $SD=1.9$ ),  $w=33544.5$ ,  $P=0.00$ . Orgasmic difficulty (53.33%) was the most common form of dysfunction reported by our sample, followed by trouble with arousal (24%) and lack of desire (19.33%). Even in females without FSD nearly half (47.36%) reported difficulty in achieving orgasm. In those with FSD all reported orgasmic difficulties, followed by trouble with desire and arousal (64.7%) (Table 3)

The mean score on Locke-Wallace Marital Satisfaction Scale was 127.91(SD=14.00) for our sample. Subjects with FSD reported a significantly lower marital satisfaction ( $M=111.2$ ,  $SD=17.6$ ) than those without FSD ( $M=130.1$ ,  $SD=12.0$ ),  $t(17)=4.31$ ,  $P=0.000$ .

**Table 1** Distribution of socio-demographic and clinical variables of the sample

Sr no	Variable		Total N=150(Percentage)
1	Age		<i>M</i> =29.147 ( <i>SD</i> =7.251)
2	Educational level	Illiterate Primary High school University	4 (2.67) 29 (19.33) 60 (40) 57 (38)
3	Occupational status	Salaried Self employed Homemaker Labourer	26 (24) 13 (8.67) 70 (46.67) 31(20.66)
4	Family income	<2 Lakhs p.a 2-10 Lakhsp.a >11 Lakhs p.a	5 (3.33) 90 (60) 55 (36.67)
5	Religion	Hindu Christian Buddhist Muslim Sikh	85 (56.67) 16 (10.67) 42( 28) 6 (4) 1(0.67)
6	Duration of marriage(in years)		<i>M</i> =5.02( <i>SD</i> = 6.20 )
7	Frequency of intercourse (3 months)	<15 15-30 >30	8 (5.3) 125(83.3) 17(11.3)
8	Presence of stressful life event	Present Absent	3 (2) 147 (98)
9	Menstrual cycle	Regular Irregular Postmenopausal	140 (93.33) 8(5.33) 2(1.33)
10	Parity	Nil 1 2 3	81(54) 40(26.67) 23(15.33) 6(4)
11	Mode of last delivery	NA Normal vaginal Caesarean section	81(54) 44(29.33) 25(16.67)
12	Current contraception use	None OCPs Barrier IUD Permanent	36(24) 36(24) 28(18.67) 41(27.33) 9(6)
13	History of Urinary tract infection	Present Absent	38 (25.33) 112(74.67)
14	Chronic disease	Present Absent	25(16.67) 125(83.33)

**Table 2** Comparison of Total and domain-wise FSFI Scores of the study sample

Domain		Total (n=150) Mean(SD)	FSFI (>26.55) Absent (n=120)	FSFI (<26.55) Present (n=30)	FSD Absent (n=139)	FSD Present (n=11)
1	Desire	5.06(1.10)	5.50(0.64)	3.28(0.7)	5.22(0.95)	3.00(0.71)
2	Arousal	5.01(1.18)	5.42(0.82)	3.36(0.91)	5.18(0.08)	2.78(0.24)
3	Lubrication	5.47(0.99)	5.77(0.36)	4.27(1.62)	5.62(0.73)	3.54(1.63)
4	Orgasm	3.69(1.91)	4.04(1.91)	2.28(1.13)	3.84(1.90)	1.78(0.67)
5	Satisfaction	5.33(1.00)	5.67(0.54)	3.97(1.26)	5.49(0.78)	3.34(0.97)
6	Pain	5.51(0.95)	5.90(0.34)	3.96(1.03)	5.66(0.78)	3.63(0.97)
Total FSFI score		30.08 (5.58)	32.32 (2.72)	21.12 (5.08)	31.03 (4.43)	18.09 (4.81)

**Table 3** Domain-wise distribution of sexual dysfunction in the study sample

Dysfunction Domain (cut off FSFI score)	FSD Absent (n=139)	FSD Present (n=11)	Total (n=150)
Desire(3.6)	18 (12.95%)	11 (100%)	29 (19.33%)
Arousal(3.9)	25 (17.99%)	11 (100%)	36 (24%)
Lubrication(3.6)	4 (2.88%)	8 (72.73%)	12 (8%)
Orgasm(3.6)	69 (49.64%)	11 (100%)	80 (53.33%)
Satisfaction(3.6)	8 (5.76%)	5 (45.45%)	13 (8.66%)
Pain(4.4)	7 (5.04%)	9 (81.82%)	16 (10.66%)

## Discussion

The field of female sexual dysfunction and issues related to female sexuality has grown substantially since the works of Kinsey, Laumann, Masters and Johnson from a doubtful diagnostic category<sup>8</sup> to an accepted nosological entity worldwide. Although the current diagnostic classification of FSD has been widely criticized<sup>9</sup>, the multi-factorial and heterogeneous nature of the problem including its biological and psycho-social aspects has been supported by literature.

Research has underlined the significance of a woman's healthy sexual function to life satisfaction and a better quality of life.<sup>10</sup> A meta-analytic review of 53 epidemiological studies worldwide has reported a wide variation in impaired sexual functioning, with prevalence rates ranging from 40-90%<sup>11</sup>. The variance is even wider when one considers the domain wise distribution of

impairment (e.g., impaired desire ranging from 6-70%, arousal problems from 11-60%, difficulties in lubrication from 1-53%, trouble with orgasm 8-72% and pain during intercourse ranging from 1-72%). Interestingly, these impairments showed a regional trend with FSD being more common in African countries than in Europe and US.<sup>11</sup>

The American Psychiatric Association's (APA) states that both low sexual function and sexually-related personal distress need to be present for a diagnosis of FSD.<sup>2</sup> Most epidemiological studies on sexual dysfunction have narrowly defined the disorder based on domains of sexual functioning, ignoring sexual distress experienced.<sup>12</sup> This could have a substantial impact on both prevalence estimates and risk factors. By excluding distress in FSD research, investigators usually overestimate the prevalence of the disorder.<sup>13</sup> This variance was clearly demonstrated in our study. Based solely on



sexual functioning (FSFI) 30 women (20%) could be classified as suffering from FSD. By including distress in the equation, we found that only 11 women (7.33%) had FSD. Indian epidemiological research on FSD has also reported a wide variation in prevalence rates (17-64%). However, none of them have included sexual distress in the assessment of FSD.<sup>14-17</sup> To illustrate, Singh et al. assessed the sexual dysfunction in women attending a tertiary care medical clinic in South India (n=149). A high degree of sexual dysfunction was found, and scores above the cut-off were present in two-thirds of the sample. Problems with desire (77.2%), orgasm (86.6%), arousal (91.3%), lubrication (96.6%) and pain (64.4%) were reported. Personal distress was not taken into consideration in the study.<sup>14</sup> In contrast, Varghese et al. reported a prevalence of FSD in less than one third of his sample of 150 young married women in South India. By including the distress dimension (DSM-IV) in the diagnosis he reported the following prevalence of FSD: hypoactive sexual desire (16.67 %), decreased arousal (14.67) and orgasmic disorders (18 %).<sup>15</sup>

In a traditional patriarchal society, the Western model that construes that deficit in domains of sexuality to be indicative of FSD may not be entirely true. In this context distress may be more indicative of FSD. In Indian society, the appropriate context for pleasurable sex is inside of the committed relationship of marriage. Moreover; an Indian woman experiencing problems in sexual functioning is not always distressed about it. This might reflect the underlying ignorance, taboo, restrictions on sexual expressiveness, perceived stigma towards expressing sexual concerns and lack of knowledge of sexual pleasure and practice. Our study, by including impairment in sexual functioning along with distress, captures the true prevalence of FSD.

An Indian woman having problems in sexual functioning may not always be distressed about it since spontaneous desire is looked down on woman and the focus is on fulfilling partner's needs. Since premarital sex is a taboo, most Indian women begin to explore sexuality after marriage. This is

compounded by poor or limited knowledge about sex and sexual techniques, unrealistic expectations regarding appropriate levels of desire, settling into joint family system, adjusting to and managing relationships and insistence on early child bearing. In most Indian families where all household chores are done by women, stress is on taking care of basic needs of children and husband and sexual desires take a backseat. Distress due to poor sexual functioning is less common than dissatisfaction with relationship in spheres of emotional intimacy and autonomy.

Domain wise distribution of sexual functioning impairment in our study revealed that even in women without FSD, almost half of them reported orgasmic difficulties (49.64%). This finding is of particular interest, as orgasmic difficulties were the most common form of impaired sexual functioning in the sample (53.3%). The importance of orgasm as a necessary and conditional component to female sexual satisfaction is being questioned of late. Research suggests that the experience of sexuality in women is more relationship-oriented and less genitally focused when compared to men.<sup>18</sup> Factors like duration of marriage, age, ethnicity, societal attitudes, religion, orientation, attitudes and misconceptions may influence and contribute to the overall sexual experience that may determine sexual pleasure or displeasure in women.

We observed that women in the early years of marriage report greater levels of FSD. This is consistent with evidence from several studies that the length of time a woman has been in a relationship can affect her sexual functioning.<sup>19</sup> We also found FSD was significantly more common in younger women. In Indian culture, exploring sexuality especially in females is actively discouraged. There is lack of opportunities to experience or explore sexuality out of context of marriage. Only in marital relationships can the sexuality be explored. Such a negative attitude towards sex may decrease woman's motivation to engage in sexual activity even during early years of marriage. Also, this finding could reflect a gradual change in expectations regarding sexual needs, improving

educational status, greater exposure to media that is more open about sexual topics, and a changing attitude towards sex especially among the urban population.

Finally, in agreement with Western studies<sup>20</sup>, we found that females with FSD had poor marital satisfaction.

### Strengths & Limitations

We personally assessed each participant for FSD by interview rather than to handout a survey questionnaire, as we felt that filling up forms requires knowledge about sexual practices and may lead to misinterpretation and thus false responses. Hospital based samples though carried out among healthy attendants of patients might suffer from selection bias and not truly represent the community. Simultaneous assessment of sexual dysfunction in the spouse was not assessed though it may contribute to FSD. Like all cross sectional studies, the effect of recall and social desirability bias cannot be excluded.

### Conclusion

Most of the sexuality research in women has focused almost exclusively on individuals rather than couples though in culturist societies in Indian and many other Asian countries relationship or marriage is more important. We found that the scales based on the current male centric model of sexual functioning does not fit clearly in Indian females. The results of this study question the wisdom of determining FSD based on simplistic scales while ignoring the multidimensional and multifactorial nature of female sexuality. Without relational and cultural context epidemiological studies on sexual dysfunction especially in India are inadequate. However, the directionality of marriage, interpersonal relationships and emotional factors in context of sexual functioning needs to be further explored in Indian women.

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