Original article

Female sexual dysfunction and associated co-morbidities: a cross sectional study with Female Sexual Function Index (FSFI) in a tertiary care hospital of Bangladesh

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Summary

Talks regarding sexual problems are not encouraging in Bangladesh and sufferers are in grave situation as they are not sure regarding whom to approach and how to start. It was aimed to see the presenting patterns of female sexual dysfunctions (FSD) and co-morbidities among the patients attending at different outpatient departments (OPD) at Bangabandhu Sheikh Mujib Medical University (BSMMU). This descriptive cross sectional study was conducted among 173 female patients attending at gynecology, endocrinology and psychiatry OPD, BSMMU. Sample was taken by convenient sampling within the period of October 2015 to December 2016. Data were collected through face-to-face interview with Female Sexual Function Index (FSFI) questionnaire. The results showed that, most (95.95%) of the patients were in the reproductive age group. Majority of the patients (32.95%) were in 26-30 years age group and 24.85% were in 18-25 years age group. Majority (77.5%) belonged to home maker occupational class where 12.7% was service-holder. Fifty six percent of the respondents were found to have sexual dysfunctions and 38.15% patients had endocrinological co-morbidities, 37.57% had gynecological co-morbidities and 33.53% had psychiatric co-morbidities. Positive openness in sexual health is required for the betterment of both treatment and diagnosis of sexual disorders. Specialized service center focusing the different groups is needed to deal with sexual health in a developing country like Bangladesh.

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Introduction

The term 'Female Sexual Dysfunction' (FSD) is much discussed in recent times in multiple fields of medical science such as sexology, gynecology, psychiatry, psychoanalysis and marital therapy.[1] Female sexuality has researched hugely in the recent past years, especially in recent 20 years.[2] FSD is highly prevalent with variations; distressing, having a major impact on quality of life and interpersonal relationships; can affect up to 50% of females but it is under reported as women seldom seek medical help.[3-11] Previous studies revealed that, it was prevalent in 43% of women in US while approximately 15% of the general population in the UK, about 62% in Iran and Turkey.[9,12-14] Repeated researches revealed a strong positive association between sexual function and quality of life as sexual function is an integral part of life.[15] FSD occurs when a woman is unable to fully experience pleasure during sexual activity that causes distress, affects a woman's quality of life, lead to interpersonal relationship impairments.[1] FSD encompasses four main phases of desire, arousal, orgasm, and pain disorders.[16] FSD as per Diagnostic and Statistical Manual for Mental Disorders, Fifth edition (DSM-5) are female orgasmic disorder, female sexual interest/arousal disorder, genito-pelvic pain/penetration disorder etc.[17] DSM-IV-TR classified FSD as arousal disorder, desire disorder, orgasmic disorder, dyspareunia and vaginismus.[18]

Bangladesh is a densely populated poor developing country in South Asia with about 160 million people but the country had achieved health related Millennium Development Goals (MDG) significantly.[19,20] The literacy rate is also increasing and recent evidence revealed currently 61% of the populations have 15 years and above age group education year.[19] Unfortunately health literacy is still neglected area and people visit the primary care with different abnormal health believes.[21] Sexual health services and talking in sexual health is still hidden and people hesitate to talk regarding sexual problems.[22,23] Female sexual dysfunction (FSD) is more obstructed in the cultures and country like Bangladesh. There is also dearth of research as well as publications to address the sexual dysfunctions, to

assess the misconception as well as remove the myths. Suffers are in grave situation as they find difficulties to reach the appropriate services providers.[24] Authors aimed to see the pattern of presentations as well as co-morbidities of FSD, among the patients' attending at different OPD at BSMMU.

Materials and methods

A descriptive cross sectional study was conducted among 173 patients attending at gynaecology, endocrinology and psychiatry OPD, BSMMU. Sample was taken by convenient sampling during the period of October 2015 to December 2016. Those who were not sexually active for six months dated back from the interview date were excluded. Data were collected through face to face interview with a semi-structured questionnaire for socio-demographic and related factors and Female Sexual Function Index (FSFI)[25] questionnaire. Co-morbidities were diagnosed by the specialists of respective departments. FSFI is widely used instrument to assess female sexual dysfunctions. The original FSFI was developed by Rosen et al. in 2000. It comprised of 19 items in six domains: desire (two questions), arousal (four questions), lubrication (four questions), orgasm, satisfaction, and pain (three questions each). Responses to each question relate to the previous month and are scored either from 0 (no sexual activity) or 1 (suggestive of dysfunction) to 5 (suggestive of normal sexual activity) and arranged in 5 point Likert scale domains are weighted and summed to give a total score ranging from 2 to 36, with a cutoff of less than 26.55 suggesting sexual dysfunction. Previous evidences have shown that mean scores on the FSFI tend to be lower in midlife and older women.[15] In the present study, cut-off points for FSD were as sexual desire 3.3, sexual arousal 3.4, lubrication 3.7, sexual pain 3.8, orgasm 3.4 and sexual satisfaction 3.8. Scores less than 4.28 on the desire domain, less than 5.08 on the arousal domain, less than 5.45 on the lubrication domain, less than 5.05 on the orgasm domain, less than 5.04 on the satisfaction domain and less than 5.51 on the pain domain were used to classify participants as having difficulties in that domain.[25,26] Data was analyzed by Statistical Package for the Social Sciences (SPSS) version 16 for windows. The authors were duly concern regarding the ethical aspects of the study. Informed written consent was taken from the respondents after detailing the study objectives, methods, risks and benefits. Data were collected by the trained graduate course physicians. Confidentiality of data was ensured adequately and any unauthorized access to data was not possible.

Results

The results showed that, most (95.95%) of the patients were in the reproductive age group. Majority of the patients (32.95%) were in 26-30 years age group and 24.85% were in 18-25 years age group. Majority (77.5%) had occupation of home making, 94.22% were menstruating, 44.46% had education below SSC level, 98.84% were married and 80.35% were from the unban background (Table 1). Among the respondents 37.57% had gynaecological, 38.15% had endocrinological, 33.53% had psychiatric co-morbidities and 19 (10.98%) had no co-morbidities where 4 respondents had all three co- morbidities (Table 2). Among the gynaecological co-morbidities, pelvic inflammatory disease, genitourinary prolapse, chronic cervicitis, vaginal candidiasis, bacterial vaginosis were mentionable (Table 2). Diabetes mellitus, hypothyroidism, hyperthyroidism, polycystic ovarian syndrome, hyperprolactinaemia, and Sheehan's syndrome were mentionable among the endocrinological co-morbidities (Table 2). Among the psychiatric co-morbidities depressive disorders was most common 14.45%, followed by anxiety disorders and bipolar disorder (Table 2). Table 3 presents the distribution of the item responses with the cut-off values of total FSFI as well as its domains. Among the respondents 56.07% scored below the cut-off margin (26.55) of FSFI total score, signifying the female sexual dysfunctions (Table 3).

Table 1: Distribution of Socio-demographic and related variables of the respondents (n=173)

Demographic Variable	Frequency	Percentage
Age (in Years)		
18-25	43	24.85
26-30	57	32.95
31-35	39	22.54
36-40	16	9.25
41-45	11	6.36
46-60	7	4.05
Occupation		
Home maker	134	77.5
Service holder	22	12.7
Student	13	7.5
Others	4	2.3
Education		
Illiterate	14	8.08
Primary	28	16.18
Secondary	35	20.2
SSC	28	16.18
HSC	29	16.76
Graduate	31	17.9
Postgraduate	8	4.6
Marital status		
Married	171	98.84
Divorced	2	1.16
Residence		
Urban	139	80.35
Rural	34	19.65
Menstrual state		
Menstruating	163	94.22
Menopausal	10	5.78
Total	173	100

Table 2: Distribution of co-morbidities among the respondents (n=173)

Co-morbidities	Frequency	Percent
Gynecological		
Pelvic inflammatory disease	9	5.20
Genitourinary prolapse	2	1.16
Chronic cervicitis	4	2.31
Vaginal candidiasis	8	4.62
Bacterial vaginosis	4	2.31
Others (multiple)	38	21.97
Total	65	37.57
Endocrinological		
Diabetes mellitus	16	9.25
Hypothyroidism	19	10.98
Hyperthyroidism	4	2.31
Polycystic ovarian syndrome	13	7.51
Hyperprolactinaemia	3	1.73
Sheehan's syndrome	3	1.73
Others	8	4.62
Total	66	38.15
Psychiatric		
Depressive disorder	25	14.45
Anxiety disorder	14	8.09
Bipolar disorder	2	1.16
Others	17	9.83
Total 58	33.53	

(More than one co-morbidity were considered in one respondent)

Table 3: Distribution of FSFI scores among the respondents (n=173)

	Desire	Arousal	Lubrication	Orgasm	Satisfaction	Pain	Total
Mean	3.21	3.79	4.50	3.81	4.38	4.69	24.35
Median	3	3.9	4.8	4.4	4.8	5.2	25.6
Mode	3	5.4	6	4.8	6	6	26.6
Standard deviation	1.29	1.33	1.41	1.60	1.39	1.47	6.34
Cut-off point	3.3	3.4	3.7	3.4	3.8	3.8	26.55
Proportion below the cut-off (%)	54.34	36.42	30.06	38.73	34.68	24.86	56.07

Discussion

The present study was the first study in Bangladesh to see the pattern of presentation of FSD in Bangladesh. Talking about sex was a taboo and especially with women it was very difficult in a moderately conservative Muslim society. As per knowledge, there was a dearth of data about female sexual dysfunction. We didn't have any organized set up in Bangladesh exclusively for women to deal with sexual problems. Researchers were initially struggled to find out where to get the patients. In a tertiary care setting like BSMMU the turnover of patients was high. So the researchers initially thought of getting the patients from gynaecology and obstetrics OPD. But later, we included the department of endocrinology and psychiatry as female patients in these departments were also accessible and convenient. Interviewers approached the respondents as per the sampling frame and the OPD registrar. About 15% patients refused to enroll themselves in the study. Reasons for refusal were lack of time, shyness, embarrassing for them and many were never been enquired by a physician in a tertiary care setting. However, initially they hesitated but after starting the interview many of them were interested in talking about their sexual

problem. During interview respondents were felt cumbersome in communicating the questionnaire especially the orgasm and emotional closeness part.

The study revealed that the respondents visited other complaints rather than any sexual complaints. After administration of FSFI, significant portion of the patients were found to have FSD. The current study showed 56.07% of FSD where 54.34% of desire, 36.42% of arousal, 30.06% of lubrication, 38.73% of orgasm, 34.68% of satisfaction and 24.86% of pain disorder with the considered cut-off values 26.55, 3.3, 3.4, 3.7, 3.4, 3.8, and 3.8 respectively. Similar findings were found in Iran with the same cut-off values; FSD 62.1%, Desire 49.2%, Arousal 43.2%, Lubrication 36%, Orgasm 38.6%, Satisfaction 26.1%, and Pain 35.2%.[9] Another study in Turkey also revealed the FSD was 62%,[12] though in both of the studies the cut-off values were culturally valid.

The used FSFI version was not validated in Bangla as well as the cut off points were not also culturally validated. The data were collected by face to face face-to-face interview by post graduate doctors who have good knowledge in English and Bengali. They were trained adequately by the principle investigator who was using the FSFI scale in Bangladesh already to patients who had adequate knowledge in English. However, the results could serve as very baseline data in Bangladesh as there was dearth of research regarding sexual dysfunction in women in Bangladesh. The participants were reluctant to share the details of sexual dysfunctions as they visited for organic illness. Interviewer had hurdles to convince the respondents to participate in the study. The study was conducted among the clinical population, attending at OPD of a tertiary care hospital. Multi-centred and community population assessment would be better to generalize the result. The study didn't include patients who had 6 months abstinence of sex with partners. Many of the women had husbands who were living abroad. Their sexual dysfunction was not assessed. Additionally assessment of distress was not considered in the current study.

Conclusion

The study revealed more than half of the females attending for other illness had sexual dysfunctions where desire disorder was found most. It indicates that FSD is still under attended or even unattended in a country like Bangladesh. Larger scale studies and assessment of the community peoples would help to visualize the situation more vivid. Adequate manpower and specialized services centers would be helpful to cope the burden as well as to increase the quality of life as there is no health without sexual health.

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