Original Article

Sexual Health of Postmenopausal Women in North India

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Abstract

Background: Sexual health is the most important aspect of person's well being, self-esteem and quality of life. Sexual pleasure leads to enhanced conjugal relationships and an overall healthy psychological state. There is paucity of data on sexual health of postmenopausal women. **Aims and Objectives:** To assess the prevalence and determinants of sexual health in postmenopausal women of North India. **Materials and Methods:** The study was conducted over a period of 18 months, from January 2016 to June 2017. Standard FSFI-6 questionnaire and various socio-demographic factors were used to analyse the sexual health of 110 menopausal women. **Results:** 80.9% postmenopausal women reported sexual dysfunction (SD). We found more sexual dysfunction in postmenopausal women with increasing age and increasing duration of menopause. Satisfied past sexual experience, joint family structure, low socioeconomic and education status were found to be important determinants of sexual health of postmenopausal females. Parity, substance use and past medical and gynaecological history of participants and various partner's factors like medical disorders, substance use and sexual disorders showed no association with sexual health in postmenopausal females. **Conclusion:** Sexuality varies with cultural and social differences across the globe. The prevalence of female sexual dysfunction in our study is much higher because Indian women are suppressed, self conscious, inhibited and hesistant to talk about their sexual problems with health care professionals. Also revalidation of the FSFI tool for Indian population is required. Further studies are needed to evaluate the sexual health in postmenopausal women.

Keywords: *Determinants of female sexual function, female sexual dysfunction, postmenopausal women, prevalence of sexual dysfunction, sexual health*

Introduction

Sexuality has an important role in a person's health, well-being, self-esteem, and quality of life.[1] According to the WHO definition "Sexual Health is a state of physical, emotional, mental, and social well-being in relation to sexuality; it is not merely the absence of disease, dysfunction, and infirmity."

As the life expectancy of Indian women is increased, they live at least two more decades in their postmenopausal period and face more problems related to sexual function. The prevalence of sexual dysfunction (SD) among all women is estimated to be between 25% and 63% and prevalence in postmenopausal women is even higher between 68% and 86.5%.[2]

There is a paucity of data on sexual health in postmenopausal women. Hence, this study was planned to evaluate the prevalence and possible factors affecting the sexual function among postmenopausal women coming to OPD of Obstetrics and Gynaecology Department of Government Medical College, Chandigarh.

Subjects and Methods

The study was conducted in the Department of Obstetrics and Gynaecology in association with the Department of

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Table 1: Female Sexual Function Index domain scoring

Domain	Questions	Score	Factor	Minimum	Maximum
Desire	1-2	1-5	0.6	1.2	6
Arousal	3-6	0-5	0.3	0	6
Lubrication	7-10	0-5	0.3	0	6
Orgasm	11-13	0-5	0.4	0	6
Satisfaction	14-16	0-5	0.4	0.8	6
Pain	17-19	0-5	0.4	0	6
Total				2	36

Table 2: Female Sexual Function Index Domain cutoffs

Domain	Minimum score for FSD
Desire	<4.28
Arousal	<5.08
Lubrication	<5.45
Orgasm	<5.05
Satisfaction	<5.04
Pain	<5.51

FSD: Female sexual dysfunction

Psychiatry, Government Medical College and Hospital, Chandigarh. A total of 110 postmenopausal women who fulfilled the inclusion criteria were recruited for the study. This was a prospective, cross-sectional study based on the standard questionnaire for assessing female SD. Postmenopausal women between 40 and 65 years of age and who were living with their partner were included in the study. Menopausal women on hormone replacement therapy and who were suffering from major mental disorders including substance abuse except nicotine, caffeine, and alcohol were excluded from the study. Furthermore, women with premature menopause were not included.

Methodology

Detailed history including sociodemographic factors, physical and mental health, gynecological factors, personal history, past medical, surgical, and sexual history was taken. Various partner's factors affecting sexual activity were also included.

The sexual functions were assessed on the basis of the Female Sexual Function Index (FSFI) Questionnaire. FSFI contains 19 questions covering six domains of desire, arousal, lubrication, orgasm, satisfaction, and pain. Responses to each question related to the previous month (within 4 weeks) were scored from 0 to 1–5. Total FSFI scale score was obtained by adding the six domain scores. Total FSFI score of <26.55 was diagnosed with female SD.[3] FSFI domain scoring is given in Table 1. Individual domain dysfunction was calculated for desire, arousal, orgasm, lubrication, satisfaction, and pain domain.[3-5] The individual cutoffs used are given in Table 2.

Results

Prevalence of SD 80.9% postmenopausal women were found to have SD. 98.1% postmenopausal women reported low sexual desire (most frequent female sexual dysfunction [FSD]). Difficulty in arousal was reported in 95.45%, lubrication in 89.09%, orgasm in 89.09%, and satisfaction in 86.36% participants. Dyspareunia was reported by 60% of postmenopausal women.

Determinants of sexual health

Age

The mean age of our study population was 53.4 ± 4.43 years, with maximum women falling in the category of 51–55 years (35.5%). Mean age of menopause of our study population was 47.29 ± 3.87 years. 53.6% of our participants attained menopause at age group of 46–50 years.

With increasing age after menopause, SD increases. Maximum dysfunction was found in females between the age of 51 and 55 years (38.6% of total SD and 87.2% within this age group). P =0.03 which is statistically significant, so age is an important determinant of SD.

Parity

Parity range of participants was from 0 to 6, with maximum population had three living children (45%). There was no significant association between parity and SD, though the percentage of SD was more with increasing parity. Female SD was increased from 57% to 90% as parity was increased from 1 to 6.

Menopause duration

In our study, all females who had just established menopause, in the 1st year reported SD in 87.5% which was more than the females with 2–5 years of established menopause (68.6%). After 5 years of menopause, they reported more dysfunction with increasing age.

Education level

66.4% of the study population were either illiterate or educated up to middle class and graduates were only 10.9%. Females with higher education reported better sexual function (P = 0.02).

Family structure

72 women (65.5%) were living in joint family and 38 women (34.5%) were living in nuclear family. 86.1% of females in joint family were found to have SD as compared to 68.4% females in nuclear family. P = 0.027 was statistically significant, suggesting family structure affects sexual activity in postmenopausal women.

Socioeconomic status

Only 28.6% of upper socioeconomic class females showed FSFI score of <26.55 as compared to 88.2% in lower class females (P value was 0.001).

Past sexual history

65 women (59.1%) reported a coital frequency of 1–3 times per week before menopause. Before menopause, 81 women (73.6%) were moderately to very satisfied with their past sexual activity. Past sexual satisfaction level was rated on a scale of 1–10. Moderately to severely dissatisfied past sexual life was reported by 11 women (10%), only one of them consulted doctor in their young age for SD.

Level of sexual satisfaction before menopause has greater impact on sexual function after menopause (*P* value was 0.005). Women who were sexually very satisfied before menopause, reported female SD in only 26.1% cases as compared to 100% in sexually dissatisfied females.

Mental illness

Five participants were diagnosed with depression and one participant was diagnosed with obsessive-compulsive disorder. As the cases of psychiatric illness are very less, so the association with SD could not be established.

Gynecological problems

Many gynecological problems were also reported by women such as uterovaginal (UV) prolapse, genitourinary infections, postmenopausal bleeding, and endometrial cancer. 16 out of total 110 participants of our study population had various gynecological problems as mentioned earlier. However, *P* value for the presence of FSD did not show any statistical significance.

Past medical history

Past medical history of participants such as pelvic inflammatory disease and pulmonary tuberculosis did not show any correlation with SD.

Factors in husband

Various factors which could affect the sexual function of female partners were included in the Proforma. Substance abuse (only alcohol and smoking) in husband was found in 46.4% (59 cases). 54.5% of those reported SD. We did not find any association between medical disorders in husband and sexual domain dysfunction. *P* value was insignificant.

Sexual disorders in husband such as erectile dysfunction or premature ejaculation were found in eight participants of our study population, all of them reported SD in postmenopausal women. The desire domain was also found to be <4.28 in all these women showing that the sexual disorder in husband also reduces the desire in the respective women.

Mean of Female Sexual Function Index score and individual domains

As is clear from Table 3, the mean FSFI score was decreasing with increasing age and higher score was reported in females with higher education and upper socioeconomic status. It is higher in women with previously satisfactory sexual life. Mean of individual domains of FSFI questionnaire of our study is given in Table 4.

Table 3: Mean Female Sexual Function Index score of significant determinant factors

Factors	Category	Mean FSFI±SD
Age (years)	41-45	20.9±11.75
	46-50	22.71±6.69
	51-55	19±8.08
	>55	14.75±9.09
Education	Illiterate	11.75±8.47
	Middle class	19.01±7.86
	Secondary class	24.31±4.9
	Senior secondary class	21.36±6.04
	Graduate and above	26.02±5.4
Past sexual experience	Very satisfied	22.26±8.58
	Moderately satisfied	19±8.3
	Equally satisfied or dissatisfied	17.08±6.17
	Moderately dissatisfied	8.9±6.07
	Very dissatisfied	3.6
Socioeconomic status	Upper class	28.31±5.77
	Upper-middle class	21.93±7.02
	Lower-middle class	17.63±8.06
	Lower class	13.27±9.84

SD: Standard deviation, FSFI: Female Sexual Function Index

Table 4: Mean of individual domains of the Female Sexual Function Index tool

Individual domain	Mean score±SD
Desire	2.26±1.09
Arousal	2.45±1.56
Lubrication	3.25±1.92
Orgasm	3.08±1.73
Satisfaction	3.6±1.41
Pain disorder	4.08±2.16

SD: Standard deviation

Discussion

Sexuality is the important aspect of health affecting the quality of life of both men and women.[6] The findings from the earlier studies reported greater decline in frequency of intercourse, sexual desire, and interest in older women as compared to older men[7,8] Female sexual function is more complex than male.[9]

The mean age of menopause in our study population was 47.29 ± 3.87 years, which is consistent with that of Maharashtra study which reported 47.59 ± 3.98 as the mean age of menopause.[10] The prevalence of SD in postmenopausal women of our study was 80.9%. FSFI scoring is adapted from the study by Rosen *et al*. and has been validated by Meston.[3,4]

A study conducted by Masliza *et al*. reported the prevalence of SD as high as 85.2% in postmenopausal women.[11] Another study conducted in 11 Latin American countries on middle-aged women (40–59 years) reported 56.8% FSD.[12] A study conducted by Huang *et al*. on 417 postmenopausal females (60–80 years) reported 67%–68% prevalence of SD.[13] In Iran population, 72.4% females reported FSD in postmenopausal period.[14] Suzzane *et al*., evaluated 1189 postmenopausal women in the US and reported the prevalence of low sexual desire in 52%.[15] FSD in Brazilian women during the menopausal transition period was 57.4%.[16]

Decline in sexual function is multifactorial. In our study, females with younger age, higher education, nuclear family, middle socioeconomic status, good past frequency of coitus, and moderately to very satisfied past sexual history were found to have a significant impact on sexual health in postmenopausal women ($P < 0.05$).

Younger postmenopausal women reported better FSFI scores and lesser dysfunction. Several other studies also reported decline in sexual function with increasing age.[5,10,11,17-20] On the other hand, Kaplan had suggested that if older person's health remains intact, their sexual functioning will be preserved until the end of life. His study showed 90.1% of postmenopausal women and approximately 70% of healthy and 70 years old remained sexually active and engaged in sex at least once a week.[21]

In our study, women with higher education reported less FSD in postmenopausal women. Similar findings were reported by many other studies.[11,22-24] Women with higher education pay more attention to their sexual problems and seek clinician's help more often and thus reporting lesser SD.

Women in nuclear families had higher FSFI score in our study ($P < 0.05$). A study conducted by Singh in South India did not find any association of family structure with FSD.[23] Since sexual behavior requires privacy, in joint families, they may not have separate room for the sexual activity as the room might be shared by children.

In our study, females from upper- and middle-socioeconomic status had higher FSFI scores. However, an Indian study conducted in Ahmedabad on young reproductive age females (20–47 years), showed higher prevalence of FSD in females with upper-middle status (36.47%) as compared to lower socioeconomic status (15.29%).[25]

In our study, 87.5% SD was reported in women within 1 year of menopause which was more than the prevalence at 2–5 years of menopause duration. It may be because of more distressing menopausal symptoms and other physiological changes occurring due to sudden cessation of hormones during 1st year. This may be possible that they gradually get acclimatized to the changes and start enjoying sexual activity after about a year as the prevalence of FSD was 68.6% in women with 2–5 years of menopause.

In our study, women with good past (before menopause) frequency of intercourse reported lesser SD. This was in accordance with the studies of Chedraui *et al*. and Dennerstein and Lehert.[26,27]

In the Indian scenario, discussion about sex and sexual problems is social taboo. Many Indian women, due to social and religious constraints believe sex to be way of reproduction only and it is only deemed appropriate after marriage. Furthermore, older people are thought to be sexually inactive. Sex for the purpose of pleasure and enjoyment may be associated with feelings of guilt or shame and thus over the time may affect their sexual function badly. Women play a submissive role, and it is highly unlikely to hear her complain of not sexually satisfied.

The sample of women used was relatively small, and we had more females from urban setting and thus findings cannot be generalized to whole country. Furthermore, we did not study other personal factors such as extramarital affair, need for masturbation, and methods used for arousal.

We realized that the FSFI tool is based on recall of past sexual experience of 1 month, this retrospective recall bias may have affected the participants' responses to FSFI score. FSFI is a brief self-report scale for different domains, and Indian women may not be fairly accurate in estimating their degree of arousal as their level of education and knowledge is also poor even though we did the translation in Hindi.

However, despite these limitations, the study is still relevant and important as there are hardly any studies from India on this highly sensitive and personal aspect of life. The findings from this study will invite observations and criticism from other researchers, and this would encourage other researchers to study this area in more details.

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Conflicts of interest

There are no conflicts of interest.

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