

Prevalence of Sexual Dysfunction in Postmenopausal Women: A Cross-Sectional Analysis in Rural Aligarh

N.Harapriya¹, Uzma Eram², Najam Khalique², Salman Shah³, Mohd. Yasir Zubair⁴

¹Junior resident, ²Professor, ³Assistant Professor, ⁴Senior resident, Department of Community Medicine, J.N. Medical College, A.M.U, Aligarh.

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Abstract

Background: Sexual dysfunction is a common problem among postmenopausal women, significantly affecting their quality of life. This study aimed to assess the prevalence of sexual dysfunction and its sociodemographic determinants among postmenopausal women in rural Aligarh, India.

Methods: A community-based cross-sectional study was performed on 326 postmenopausal women aged 40-55 years, using simple random sampling with PPS, from August 2022 to July 2024.

Results: Sexual dysfunction is prevalent in 66.25% postmenopausal women in rural Aligarh, Avoiding intimacy (81.28%) and changes in sexual desire (76.99%) were the most commonly reported symptoms. Significant associations were observed between sexual dysfunction and sociodemographic factors such as socioeconomic status ($\chi^2=11.038$, $p=0.026$) and occupation ($\chi^2=5.98$, $p=0.007$). Tobacco use (smokable) also showed a significant association with sexual dysfunction ($\chi^2=9.546$, $p=0.010$), as did early menopause ($\chi^2=8.092$, $p=0.044$).

Conclusion: These findings highlight the need for culturally sensitive interventions and healthcare resources to address sexual health concerns in postmenopausal women, especially in rural settings.

Keywords: Sexual dysfunction, Postmenopausal women, Rural, Quality of life.

Introduction

As per the World Health Organization (WHO) report, menopause is defined as 12 months of amenorrhea in women marking the end of their reproductive years. The postmenopausal stage is

considered as stopping the menstrual period for more than 12 months due to the natural causes¹. Menopause is accompanied by anatomical, physiological, and psychological changes that often affect women's sexual functions^{2,3}. Changes in women's sexual function and desire are one of the most common

Corresponding Author: Uzma Eram, Professor Department of Community Medicine, J.N. Medical College, A.M.U, Aligarh.

E-mail: uzmazoya27@gmail.com

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symptoms in this period⁴. Studies suggest that there is a significant relationship between experiencing sexual symptoms and menopausal status^{5,6}.

According to estimates, sexual dysfunction affects up to 68% of postmenopausal women worldwide and is influenced by social, cultural, and health-related variables^(1, 14). Similar high prevalence rates have been reported in India, where estimates vary from 49% to 75% based on regional and urban-rural variations^(7, 15). For instance, more than 75% of postmenopausal women reported having sexual health problems, such as decreased sexual desire and intimacy avoidance, according to a study done in Western Maharashtra⁽⁷⁾. Cultural stigmas that cause underreporting of sexual health issues, especially in rural settings, frequently exacerbate this incidence⁽¹⁰⁾.

Women will face many problems and complications from the lack of sex hormones⁽¹⁴⁾. Sexual relationships are one of the most important factors affecting the happiness of marital life¹⁵. Sexual dysfunction has long-term effects that go beyond physical health and have a major influence on quality of life and mental health. Reduced self-esteem, increased marital strife, and a higher risk of mental health issues including anxiety and depression are all linked to sexual dysfunction in postmenopausal women^(1, 15, 16).

Despite the high prevalence rates of sexual dysfunction that have been documented in different regions, little is known about the sociodemographic and cultural factors that may have a particular impact on these rates among postmenopausal women in rural India. Most research has been done in urban areas or with hospitalized people, where access to healthcare and cultural perspectives varies greatly from those in rural areas. Addressing this gap is essential to provide tailored, culturally sensitive healthcare interventions for rural postmenopausal women. Understanding the specific sociodemographic factors that contribute to sexual dysfunction in this population can inform policies and programs that are aligned with their unique needs.

Materials and Methods

A community based cross sectional study was conducted among 326 females aged between

40 to 55 years in the rural field practice areas of Department of Community Medicine, JNMCH, AMU. The duration of study was from August 2022 to July 2024. Postmenopausal Women aged between 40 to 55 years with an intact uterus and who signed informed consent were included in the study.

In order to capture women going through the early stages of post menopause and prevent confounding factors related to aging, the study concentrated on women between the ages of 40 and 55. Because hormonal changes have a direct impact on sexual health and quality of life, studies show that symptoms of sexual dysfunction are most noticeable in the years immediately following menopause, usually up to about age 55^(1, 16). Other factors that are known to independently affect sexual performance, such as chronic illnesses, age-related hormonal changes unrelated to menopause, and declining physical health, may be introduced if women older than this age range are included⁽¹⁷⁾.

Exclusion criteria:

- Hysterectomy patients
- Postmenopausal Females with estrogen related cancers like breast carcinoma, uterine carcinoma, ovarian carcinoma.
- Postmenopausal Females on Hormone replacement therapy or Oral contraceptives or Hormonal IUDs
- Postmenopausal Females with current unstable sociocultural/ medical conditions.

Assuming 70% as the prevalence of sexual dysfunction in menopausal women, and applying the formula for sample size(N) calculation for cross sectional observational study as $N = Z^2PQ/D^2$, the sample size was found to be 326.

Ethical Considerations

Subjects were explained about nature of the study and written informed consent was taken from the participants and that they could withdraw at any time without repercussions. Interviews were conducted in a non-hostile and non-judgemental manner to minimize any discomfort. An environment of trust was created particularly while engaging widowed or older women who may feel additional social or cultural reservations. Confidentiality of the given

information has been maintained. Health education and counselling was provided to the women who were participating, appropriate referrals were done wherever required. The study was approved by the Institutional Ethics Committee by Jawaharla Nehru Medical College & Hospital, Faculty of Medicine Aligarh Muslim University Ref no.821 dated 24.10.22

Results

Table 1: Population Characteristics of the Study Participants, (N=326).

Characteristic	Number (n)	Percentage (%)
Age Group (years)		
40-45	85	26.07
46-50	125	38.34
51-55	116	35.58
Education Level		
Illiterate	207	63.5
Primary	72	22.09
Secondary & Higher	47	14.42
Occupation		
Homemaker	245	75.15
Skilled/Semi-skilled	34	10.43
Unemployed	47	14.42
Socioeconomic Status		
Upper	42	12.88
Upper Middle	23	7.06
Middle	53	16.26
Lower Middle	153	46.93
Lower	55	16.87
Tobacco Use Chewable)		
Yes	33	10.12
No	293	89.88
Tobacco Use Smokable)		
Yes	17	5.21
No	309	94.79
Age at Menopause		
<40 years	101	30.98
40-45 years	168	51.53
46-50 years	128	39.26
51-55 years	23	7.06

A total of 326 postmenopausal women participated in the study. The mean age of the sample was 52.79 ± 6 years, and the average age of menopause onset was 43.8 ± 5 years, with a median of 44 years. Most participants were illiterate, homemakers, married, and from the lower-middle socioeconomic class. The majority were non-smokers and non-drinkers. (Table 1).

Table 2: Prevalence of Sexual Symptoms in the Study Population (N=326)

Sexual Symptoms	Number (n)	Percentage (%)
Avoiding intimacy	265	81.28
Change in sexual desire	251	76.99
Vaginal dryness	133	40.79
Overall Prevalence	216	66.25

The prevalence of sexual symptoms among the women was 66.25%. Avoiding intimacy was the most frequently reported symptom (81.28%), followed by changes in sexual desire (76.99%) and vaginal dryness (40.79%).

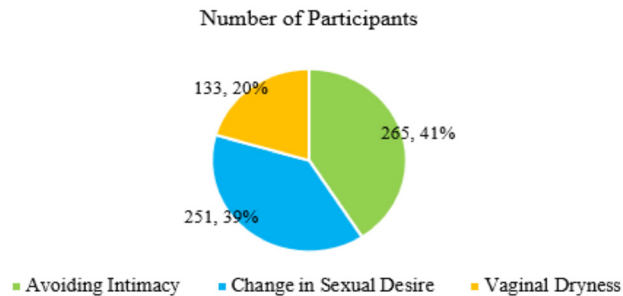


Fig 1. Prevalence of Sexual Dysfunction Symptoms Among Postmenopausal Women.

Table 3: Mean Scores for Sexual Dysfunction Symptoms

Symptom	Mean \pm SD
Vaginal Dryness	1.25 \pm 1.920
Avoiding Intimacy	4.17 \pm 2.854
Change in Sexual Desire	3.75 \pm 2.708
Overall Sexual Domain	3.053 \pm 2.05

The mean \pm SD score for the sexual domain was 3.053 ± 2.05 . Vaginal dryness had a mean score of 1.25 ± 1.920 , avoiding intimacy scored 4.17 ± 2.854 , and changes in sexual function scored 3.75 ± 2.708 .

Table 4: Association of Sexual Symptoms with Population characteristics.

Variable	Chi-Square (χ^2)	p-value
Occupation	$\chi^2=5.98$	p=0.007
Socioeconomic Status	$\chi^2=11.038$	p=0.026
Tobacco (Chewable)	$\chi^2=2.736$	p=0.098
Tobacco (Smokable)	$\chi^2=9.546$	p=0.010
Age at Menopause	$\chi^2=8.092$	p=0.044

Statistical analysis revealed significant associations between the prevalence of sexual symptoms and various factors. Women who were unemployed or unskilled had a significantly higher likelihood of developing sexual symptoms than those in skilled or clerical occupations ($\chi^2 = 5.98$, $df = 1$, $p = 0.007$). Similarly, women from lower socioeconomic classes were more prone to sexual symptoms compared to their wealthier counterparts ($\chi^2 = 11.038$, $df = 4$, $p = 0.026$). Tobacco use was another factor significantly associated with the presence of sexual symptoms ($\chi^2 = 9.546$, $df = 1$, $p = 0.010$). Additionally, women who experienced early menopause (before the age of 40) reported significantly more sexual symptoms ($p = 0.044$).

Discussion

The results of this study indicate a high prevalence of sexual dysfunction among postmenopausal women, which are similar with findings from other Indian and global studies. For example, a study in Western Maharashtra reported that over 75% of postmenopausal women experienced sexual health problems⁷. Similarly, another study⁸ found that Iranian women had a prevalence of sexual issues ranging from 26% to 51%, suggesting that menopause and aging can negatively impact sexual quality of life.

Another study⁹ reported that vaginal dryness was one of the most common symptoms experienced by postmenopausal women. In contrast, in rural India, sexual symptoms may be underreported due to cultural taboos surrounding discussions of sex, as observed in a hospital-based study in Karnataka, where only 24% of women reported sexual dysfunction¹⁰. A community-based study in a rural area¹¹ found that 49% of women reported avoiding intimacy, 40% experienced changes in sexual desire,

and 26% complained of vaginal dryness. Urogenital symptoms, including sexual dysfunction and vaginal dryness, were reported by 33.53% of women in urban slums in Karnataka¹². A hospital-based study in Kochi reported that nearly 98.7% of postmenopausal women experienced a decrease in sexual desire, and 97.3% avoided intimacy.¹³

Conclusion

These findings underscore the need for culturally sensitive health interventions to address sexual health issues among postmenopausal women, especially in rural settings where discussing sexual dysfunction remains taboo. The staff of health centres should emphasize sexual desire in every person's life by contemplated programming for the continuous training courses for menopausal women about sexual activity, the physiological changes during menopause, and their way of adapting themselves in order to prevent them from psychological and social consequences of sexual dysfunctions.

Limitations and Recommendations

It is essential to consider this study's limitations. First, the cross-sectional design limits the ability to establish causal links between sociodemographic factors and sexual dysfunction. A longitudinal study may better capture the progression of these symptoms. Second, findings may not fully generalize to urban populations, where cultural norms and healthcare access differ. Third, self-reporting could lead to underreporting due to stigma around sexual health, especially among older or widowed women. Lastly, the exclusion of women over 55 limits insights into the health challenges faced by older postmenopausal women.

To further examine changes in postmenopausal women's sexual health over time and identify contributing factors, future research should take into account a longitudinal study design. A more thorough understanding of sexual dysfunction in various contexts will be possible by extending research to cover urban and diverse demographic locations.

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