

Assessment of postmenopause symptoms and attitude toward menopause-related changes among women in rural and urban settings of North India

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Abstract

Background: Menopause marks a significant physiological and psychological transformation in life of women. Based on the lifestyle and availability of medical resources, rural and urban settings have disparity in awareness regarding menopause. **Objectives:** The present study aims to assess the postmenopause symptoms and attitude toward menopause related changes among women in rural and urban settings of North India. **Methods:** A total of 400 postmenopause women who had menopause within the past 5 years were recruited in this study with 200 women from rural settings and 200 from urban settings. Women having menopause due to unnatural causes were excluded from the study. House to house survey was conducted at the randomly selected rural/urban locations. Participants were interviewed to assess postmenopause symptoms and attitudes toward menopause-related changes. **Results:** The mean age of women was 51.52 ± 4.24 years and 51.04 ± 4.08 years in rural and urban settings, respectively. The knowledge and awareness about menopause before its onset came out to be 92% in rural settings and the figure is slightly higher in urban settings, that is, 98.5%. The most common vasomotor symptom in both rural/urban settings was hot flashes and night sweats; the most common urinary symptom was leakage of urine while coughing, vaginal irritation was significantly higher in women from urban settings while dryness in vagina was significantly higher in women from rural settings. Anxiety or irritability was the most common psychological symptom. Most of the women found to accept the menopause changes easily without any difficulty in both rural and urban settings. **Conclusion:** From the public health perspective, there is substantial scope to improve postmenopausal women's quality of life by increasing health education about postmenopausal symptoms and its treatment by taking steps for lifestyle modifications.

Keywords: Behavior, postmenopause, public health, quality of life, women

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Introduction

As a consequence of the global rise in life expectancy because of improved diet and health-care delivery system, menopause has become a major research topic.^[1] The adoption activities by the government and other stakeholders are aimed at achieving the Millennium Development Goals. This in return is anticipated to boost the quality

of life in postmenopausal women.^[2] According to the proceedings of the first-ever consensus meeting on menopause which was held in the East Asian Region, Geneva; 1997, it was found out that there were 476 million postmenopausal women in the globe in the year 1990, with 40% of them residing in the industrialized world. By 2030, this number is expected to rise to 1200 million, with 76% of these women living in developing countries.^[3] In this scenario of postmenopausal life expectancy growing, it has become more relevant for health-care practitioners to pay greater attention to this group of women's health to guarantee that their lifespan after menopause is overall productive. Millions of women become older before their time due to the everyday harshness and injustices in different stages of their life. Malnourishment, reproductive ill health, hazardous working circumstances, violence, and lifestyle-related disorders are all contributing factors that increase the risk of breast and cervical cancers, osteoporosis, and other chronic diseases after menopause.^[4]

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Financial insecurity, loneliness, and psychological fluidity are frequent in old life.^[5]

Menopause is characterized by physical symptoms such as weakness, internal heat, general body aches, bodily shrinkage, dizziness, sweating, restlessness, and urine incontinence. Dryness, pain, itching, and dyspareunia have all been described as vaginal symptoms. In this group of women, sexual issues, notably libido loss, and primary sleep disorders (apnea and restless leg syndrome) are common.^[6] A combination of these variables, such as loss of fertility, dread of ageing, the loss of physical beauty, diminished activity with its impact on social status, and changes in family duties, can lead to depression. Forgetfulness, irritability, sleeplessness, headache, and anxiety are some of the psychological symptoms.^[7]

Unfortunately, many postmenopausal women are unaware of the health consequences of menopause and the ways to manage them or how to cope with it. Health-care providers are also at times unobservant about the symptoms of menopause or the utility of hormone replacement treatment.^[8] The perceived cause of a symptom, the severity of the symptoms, sociocultural influences, distance of health facility, cost of treatment, economic profile, level of literacy, and the quality of health-care facilities greatly influence the health provider for management of a symptom.^[9]

No studies have been conducted regarding menopause symptomatology in primary care settings in Solan district of Himachal Pradesh. Most knowledge related to symptoms experienced during the menopausal transition comes from studies from urban areas. This leaves a gap in the literature of urban and rural settings since menopause symptoms vary from society to society because of changes in demographic characteristics, psychosocial, and lifestyle factors which are important determinants. The purpose of this study is to investigate the post-menopause symptoms and attitudes toward menopause-related changes among women in rural and urban settings in the state of Himachal Pradesh in North India.

Methods

Study design

The present study was a prospective, observational, descriptive, cross-sectional, and community-based study conducted at the urban and rural settings in the Solan district of state of Himachal Pradesh in North India. A total of 400 post-menopause women who had menopause within the past 5 years were recruited in this study with 200 women from urban settings and 200 from rural settings. Women having menopause due to unnatural causes or critically ill women were excluded from the study.

Data collection

House-to-house survey was conducted at the randomly selected rural/urban locations or Himachal Pradesh state of North India. Participants were interviewed with self-designed, semi-structured pre-tested questionnaire to assess QoL and health-seeking behavior. The sociodemographic information regarding age, menopause years,

socioeconomic status, education, and occupation was collected. Previous awareness about menopause and source of awareness was also identified. Postmenopause symptoms including vasomotor symptoms, urinary symptom, vaginal and sexual symptoms, and psychological symptoms were studied. Attitude toward menopause-related changes and need of medical assistance was also analyzed.

Statistical analysis

The statistical analysis was carried out using SPSS 27.0. For quantitative variables, mean and standard deviation were used as measures of central tendency and variability respectively. For qualitative variable, a fraction of total and percentages was calculated. Chi-square test was used to compare two qualitative groups and unpaired t-test was used to compare two quantitative groups. $P < 0.05$ was considered as significant.

Results

The mean age of women was 51.52 ± 4.24 years in rural settings and 51.04 ± 4.08 years in urban settings. The mean menopause years were 3.33 ± 1.51 and 2.70 ± 1.40 years in rural and urban settings, respectively. Socioeconomic status revealed that a significantly high number of women were on the above poverty line in urban setting compare to women in rural settings. Education level was significantly higher in the urban settings compared to the rural settings. Most of the women in both urban and rural settings were homemaker [Table 1].

A significantly higher number of women in rural settings were unaware about the knowledge of postmenopause compared to the urban settings. The most common source of awareness in both rural and urban settings friends and family is shown in [Table 2].

The most common vasomotor symptom in both rural/urban settings was hot flashes and night sweats which were significantly high women in urban settings. The most common urinary symptom was leakage of urine while coughing. Vaginal irritation was significantly higher in women from urban settings while dryness in vagina was significantly higher in women from rural settings. Anxiety or irritability was the most common psychological symptom in women from both urban and rural settings [Table 3].

Most of the women found to accept the menopause changes easily without any difficulty in both rural and urban settings. Medical assistance was requisite significantly higher among women from urban area compared to women from rural area. The most common nutrient supplement was iron and calcium with significantly higher frequency in women from urban settings [Table 4].

Discussion

Menopause is an inevitable phase during midlife when various physical and mental changes are likely to adversely affect the quality of life of women.^[10] In this study, mean age of menopause was found 51.52 years and 51.04 years in urban and rural study subjects,

Table 1: Sociodemographic characteristics of post-menopause women

Variable	Sub-domain	Rural	Urban	P-value
Mean age		51.52±4.24Years.	51.04±4.08 Years.	0.553
Menopause years		3.33±1.51	2.70±1.40	0.166
Socioeconomic status	APL	151 (75%)	186 (93%)	0.000*
	BPL	49 (24.5%)	14 (7%)	
Education	Uneducated	54 (27%)	48 (24%)	0.000*
	5 th class	26 (13%)	5 (2.5%)	
	8 th class	11 (5.5%)	1 (0.5%)	
	10 th class	37 (18.5%)	42 (21%)	
	12 th class	50 (25%)	74 (37%)	
	Graduation	21 (10.5%)	26 (13%)	
	Postgraduation	1 (0.5%)	4 (2%)	
Occupation	Homemaker	178 (89%)	178 (89%)	0.549
	Labor	3 (1.5%)	2 (1%)	
	Service	13 (6.5%)	16 (8%)	
	Business	3 (1.5%)	7 (3.5%)	

Table 2: Previous awareness about menopause and source of awareness

Variable	Sub-domain	Rural	Urban	P-value
Previous awareness about menopause and source of awareness	Family	88 (44%)	24 (12%)	0.000*
	Friend	66 (33%)	147 (73.5%)	
	Books	2 (1%)	7 (3.5)	
	Health professionals	11 (5.5%)	7 (3.5%)	
	Media	2 (1%)	12 (6%)	
	Friend and Books	6 (3%)	0	
	Book, Media both	9 (9%)	0	
	Unaware	16 (8%)	3 (1.5%)	

respectively which is almost similar to a previous study done by Karmakar *et al.*^[11] In our study, BPL menopausal women in rural and urban settings are 24.5% and 7%, respectively. This observation can be attributed to the fact that the system of identifying and registering the BPL families is more organized and easier in the rural area as compared to the urban areas.

In our study, in rural settings, 27% of women were illiterate, whereas the corresponding figure in the urban study subjects is 24%. This observation is in accordance with a study done by Goyal *et al.*^[12] Rural literacy rate is higher in our study. Although rural areas of our study fall under Gram Panchayats, but are socioeconomically developed. As of 2021, the female literacy rate in the country is 71.5% whereas in Himachal Pradesh average literacy rate in females is 74.25%. Both the figures correspond with our study.^[13]

In study done by Veigas *et al.* in Mangalore, Karnataka, it was reported that 72.5% were housewives which is comparable to the present study in which it came out to be 89% in both rural and urban district.^[14] In our study, it was observed that awareness about menopause before its onset in study subject is 92% in rural. Figure is slightly higher in urban, that is, 98.5%. The predominant source of information in our study is derived from family and friends in both rural and urban settings. It reflects that barrier of communication exists regarding this sensitive

Table 3: Postmenopause symptom

Variable	Sub-domain	Rural	Urban	P-value
Vasomotor Symptoms	Hot flashes only	90 (45%)	130 (65%)	0.000*
	Night sweats only	14 (7%)	25 (12.5%)	
	Hot flashes and night sweats	44 (22%)	0 (%)	
	No symptom	52 (26%)	45 (22.5%)	
Urinary Symptom	Frequent Urination	1 (0.5%)	0	0.078
	Frequent Urination with inability to control	2 (1%)	3 (1.5%)	
	leakage of urine while coughing	12 (6%)	3 (1.5%)	
	No symptom	185 (92.5%)	194 (97%)	
Vaginal and Sexual symptoms	Dryness in vagina	18 (9%)	13 (6.5%)	0.021*
	Pain during intercourse	2 (1%)	6 (3%)	
	Vaginal irritation	7 (3.5%)	9 (4.5%)	
	No symptom	173 (86.5%)	172 (86%)	
Psychological Symptoms	Anxiety	36 (9%)	37 (18.5%)	0.275
	Anxiety and irritability	3 (1.5%)	0	
	Irritability	25 (12.5%)	24 (12%)	
	Irritability with anxiety	3 (1.5%)	0	
	Lack of motivation	5 (2.5%)	4 (2%)	
	No symptom	128 (64%)	135 (67.5%)	

issue between our study subjects and health-care providers. It is a grey area in this field which needs to be addressed for the improvement of overall quality of life and health-seeking behavior.

In the present study, the most prevalent symptom was hot flashes which are 45% and 65% in rural and urban settings, respectively. The corresponding figure of hot flashes is in accordance with 56% in a study done by Mahajan *et al.*^[15] Anxiety was reported 18% and

Table 4: Attitude toward menopause-related changes and need of medical assistance in postmenopause women

Variable	Sub-domain	Rural	Urban	P-value
Acceptance to menopause changes	Easily	148 (74%)	149 (74.5%)	0.909
	With difficulty	52 (26%)	51 (25.5%)	
Medical Assistance	Pvt. Health facility	3	17	0.000*
	Govt. health facility	13	30	
	No medical assistance	184	153	
Nutrient Supplements	Calcium	14 (7%)	8 (4%)	0.000*
	Iron	13 (6.5%)	3 (1.5%)	
	Iron and calcium both	90 (45%)	67 (33.5%)	
	Multivitamin	8 (4%)	3 (1.5%)	
	No supplement	75 (37.5%)	119 (59.5%)	

18.5% in rural and urban settings in the present study which was lower in concordance with the study done in Jammu by Sharma and Mahajan.^[16] The exact mechanism of reason behind psychological problems in menopause is not yet known although the fluctuations in estrogen level. Its effect on neurotransmitters serotonin and norepinephrine may be the contributing factors for menopausal mood swings, poor emotional well-being, and depression.^[17] In addition, societal expectations and role changes due to the advancing age may contribute to the heightened rate of depression in women.^[18] Both in urban and rural settings urinary symptoms were present in 7.5% and 3% of the subjects, respectively, in our study. This finding of the present study is concurrent to the study done by Goyal *et al.* where values of 7.5% and 9% were observed for urinary symptoms.^[12]

Vaginal and sexual symptoms in postmenopausal women were reported in the present study to be 13.5% and 14% which is comparatively less to research done by Devi *et al.* in which results were 68% and 65%, respectively, in urban and rural settings in Sikkim, India.^[19] Dryness of vagina came out as the commonest reported symptom in vaginal and sexual domain. The reason for the low reporting of symptoms in this domain can be attributed to conservative and stigma associated with an open discussion on these symptoms in our region both in urban and rural settings. Hence, postmenopausal women should be sensitized for availing the health facilities for their health problem.

Irrespective of various menopausal symptoms experienced by study subjects in our study, it was found that 74% of women in rural and 74.5% in urban areas easily accepted the changes accompanied with this transition in their midlife. Other analysis of the present study came out to be that medical assistance was taken only by 8% of menopausal women in rural and 23.5% in urban settings which is in contrast with study done by Apoorva and Thomas in Hyderabad which came out to be 80% and 20% in rural and urban settings, respectively.^[13]

Conclusion

The present research has tried to establish the baseline of menopausal health problems in urban and rural settings of Himachal

Pradesh state of North India. To achieve the best public health outcome, all health-care providers should try to spread awareness regarding most menopause changes. Special measures such as frequent orientations and trainings of health professionals must be conducted. The government should focus on providing health services to the women in post-reproductive age group also besides women in reproductive age. This can be achieved by incorporating components related to specific health needs of postmenopausal women in the national health programs. Various health-care professionals such as health workers, ASHA, Aanganbadi, workers can play a significant role in making women understand about the menopausal symptoms. This will be possible only by giving them proper trainings.

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