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Menopausal Symptoms Among Women of rural Areas of Haryana

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Abstract: ***Introduction**: In menopause a series of endocrinological changes occur that are caused by the decline in production of estrogens by the ovaries that lead to low oestrogen levels which makes one of the most critical stages for the health of women in their life. Early detection of symptoms can reduce the prevalence of discomfort and fears among climacteric women. According to studies, at least 60% of ladies suffer from moderate symptoms and 20% suffer severe symptoms and 20% from no symptoms. 45 to 55 years old is the biological age at which menopause occurs worldwide, with an average of India for 46.6 years (NIH). Hot flashes, night sweats, mood and sleep disturbances, memory and concentration issues, anxiety and sadness, sleep abnormalities, bone and joint issues, and muscle loss, problems with sexual function, incontinence, fractures, heart disease, and reproduction are just a few of the symptoms that women may have during this time. **Aim**: To study the prevalence of menopausal symptoms. **Methodology**: This community-based cross-sectional study was conducted between January and December 2024 in the rural field practice area of MMIMSR, Mullana, Ambala. The study population comprised postmenopausal women aged 45–55 years who had not menstruated for at least 12 months and were not on any form of medication or hormonal therapy. Personal face to face interviews will be conducted. Patients will be explained about the purpose of study. **Result**: Among vasomotor symptoms, hot flushes, 35.7% experienced moderate effects, and 18% had severe effects. Regarding night sweats, 37.6% experienced moderate effects, and 15% had severe effects. Sweating affected 29% with moderate effects, and 20.7% with severe effects. While among Psychomotor symptoms, anxiety or nervousness 51% with moderate effects, and 7.7% with severe effects. Poor memory affected 51.3% with no effect, 41.6% moderately, and 8% severely. **Conclusion**: Overall, the findings emphasize the importance of education, maintaining a healthy BMI, and regular physical activity in reducing the impact of menopausal symptoms.*

Keywords: menopausal symptoms, MENQOL, Perimenopause, vasomotor symptoms, physical symptoms, hot flushes

1. Introduction

The words "meno" (month) and "pause" (to end) are synonymous with "menopause." Therefore, the literal meaning is the cessation of the monthly menstrual bleeding cycle. People's lifespans have been greatly extended by modern medicine, and the majority of women live between one-third and half of their lives beyond menopause. [1, 2] According to the World Health Organization (WHO) post-menopausal women are those women who have achieved amenorrhea for 12 continuous months or stopped having menstruation as a result of medical or surgical intervention (Hysterectomy/Oophorectomy) or both [3]. 45 to 55 years old is the biological age at which menopause occurs worldwide, with an average of India for 46.6 years (NIH). Hot flashes, night sweats, mood and sleep disturbances, memory and concentration issues, anxiety and sadness, sleep abnormalities, bone and joint issues, and muscle loss, problems with sexual function, incontinence, fractures, heart disease, and reproduction are just a few of the symptoms that women may have during this time. [6,7]

Deficiency in estrogen is linked to the main consequences of menopause. Postmenopausal women's primary health concerns include diminished cognitive function, urogenital atrophy, osteoporosis, cardiovascular disease, cancer, vasomotor symptoms, and sexual issues [8].

A number of symptoms, including physiological changes, are caused by hormonal changes that start during the menopausal transition. Given that women are playing significant roles in society, the home, and the job at the moment these symptoms may be upsetting. The symptoms associated with menopause cause women's quality of life to decline. A number of elements that may be related to quality of life have been identified by several research. However, disparities were discovered in several investigations. The study sought to determine the variables linked to postmenopausal women's quality of life.

Even though menopause is a physiological phenomenon, it requires appropriate cultural education, problem-solving skills, and mental health enhancement because of the variety of symptoms and difficulties. Postmenopausal women who receive intervention for their vasomotor, sleep, and cognitive issues have better quality of life. Menopausal women who participate in group training have been demonstrated to improve their knowledge, share their experiences and general life understanding, and have fewer menopausal symptoms. One month following the life skills education intervention, postmenopausal women's quality of life scores increased in another trial [9].

Self-efficacy is an additional aspect that influences life quality. In accordance with Bandura's definition, self-efficacy is the conviction that one can carry out the intended task, and self-efficacy and quality of life are significantly correlated. Training boosts postmenopausal women's confidence in their ability to take care of themselves. Self-care is the term used to describe the things people undertake to prevent illness and maintain their health [10]. In order to survive, preserve, and advance their own lives, people can carry out their daily tasks independently by practicing self-care. Menopausal care training enhances the self-care and quality of life of postmenopausal women, who do not exercise adequate self-

care [11]. The teaching approach, however, is a crucial idea that contributes to a better outcome.

According to other studies, 20% of women with menopausal symptoms have severe symptoms, 20% have no symptoms, and the remaining have mild symptoms [12]. Notably, no health program in India currently addresses the special medical needs of postmenopausal women; the National Rural Health Mission and Reproductive and Child Health-II program primarily targets women who are still in the reproductive age range, excluding those who have passed the reproductive stage [13]. Since life expectancies for women in India are increasing, we conducted this study to determine the attitudes of women over 40 about menopause and the factors that contribute to menopausal symptoms.

The Menopause-specific Quality of Life Questionnaire (MENQOL) measures the frequency and severity of uncomfortable physical and mental health problems that women may experience during the menopausal transition [14]. Due to its widespread usage across cultural contexts, the MENQOL has gained recognition as a valuable tool for assessing quality of life in both postmenopausal and perimenopausal women [15]. Psychosocial health is measured by a particular MENQOL value that hasn't been examined by other commonly used measures. Therefore, when used in conjunction with other menopause-specific quality of life questionnaires, the MENQOL may prove to be a useful instrument for a thorough assessment of the phenomena seen during the menopausal transition [16].

Our study's goals are to determine how common menopausal symptoms are and how they affect middle-aged, rural women in Haryana, India, between the ages of 45 and 55. Education and awareness on perimenopausal changes are the most important assistance that can be provided by the doctor to these women. One of the goals of health services for all of the people in the 21st century is to improve quality-of-life.

2. Methodology

This community-based cross-sectional study was conducted between January and December 2024 in the rural field practice area of MMIMSR, Mullana, Ambala. The study population comprised postmenopausal women aged 45–55 years who had not menstruated for at least 12 months and were not on any form of medication or hormonal therapy. Women with physical, mental, or chronic illnesses and those with unnatural menopause (due to surgery or radiotherapy) were excluded. Based on a 60% prevalence rate of menopausal symptoms, with a 10% allowable error and 95% confidence interval, the sample size was calculated using the formula N=4pq/l2N = 4pq/l^2, resulting in 266. After adding 10% for non-response, the final sample size was rounded to 300. Participants were selected randomly from a list of 753 menopausal women identified through records at the Rural Health Training Centre (RHTC), Adhoya. Data were collected through face-to-face interviews using a pre-tested, structured questionnaire comprising three sections: socio-demographic details, reproductive and health characteristics, and the Menopause-Specific Quality of Life (MENQOL) questionnaire. MENQOL includes 29 items divided into four domains—vasomotor, psychosocial, physical, and sexual—scored from 1 to 8. Mean scores were used to assess the impact on quality of life. Informed consent was obtained from all participants.

3. Results

Out of 300 participants, majority 66.3%, experienced menopause between 45-50 years. 32.7% had menopause below 45 years, while only 1.0% experienced it between 51-55 years. The highest proportion experienced menopause more than 5 years ago which was 29.7%. 22.0% had menopause 2 years ago, while 15.3% experienced it 1 year ago. Other groups include 12.7% at 3 years, 13.0% at 4 years, and 7.3% at 5 years.

The table 1 shows the distribution of vasomotor symptoms in the study population. For hot flushes, 46.3% of participants reported no effect on quality of life (QOL), 35.7% experienced moderate effects, and 18% had severe effects. Regarding night sweats, 47.4% reported no effect, 37.6% experienced moderate effects, and 15% had severe effects. Sweating affected 50.3% with no impact on QOL, 29% with moderate effects, and 20.7% with severe effects. The table presents the distribution of psychosocial symptoms in the study population. Most individuals reported no effect or a moderate effect for various symptoms. For dissatisfaction with personal life, 65.3% reported no effect, while 34.7% had a moderate effect. Anxiety or nervousness was reported by 41.3% as having no effect, 51% with moderate effects, and 7.7% with severe effects. Poor memory affected 51.3% with no effect, 41.6% moderately, and 8% severely. The distribution of physical symptoms among the study population reveals varying levels of impact. Many participants reported moderate effects for most symptoms, such as passing gas or gas pain (53.6%), aching muscles and joints (61.3%), and difficulty sleeping (56.3%). Severe effects were observed in symptoms like low backache (31.7%), decreased physical strength (28%), and dry skin (5.6%). Common symptoms like weight gain (54%), frequent urination (51.4%), and involuntary urination when laughing or coughing (57.3%) were more prevalent, with a significant number experiencing moderate effects. The table shows the distribution of sexual symptoms among the study population. Regarding the decrease in sexual desire, 48% reported no effect, 11% a moderate effect, 3.7% a severe effect, and 40% chose not to answer. For vaginal dryness, 31.3% reported no effect, 28% a moderate effect, with no severe cases, and 40.7% denied answering. When it comes to avoiding intimacy, 46.3% had no effect, 12.7% experienced a moderate effect, 0.3% had a severe effect, and 40.7% did not provide an answer.

Table 1: Severilty of Menopausal Symptoms among Rural Women

Vasomotor symptoms	**Mild**	**Moderate**	**Severe**
Hot Flushes	139(46.3%)	107(35.7%)	54(18%)
Night Sweats	142(47.4%)	113(37.6%)	45(15%)
Sweating	151(50.3%)	87(29%)	62(20.7%)
Psychosocial symptoms			
Dissatisfaction with my personal life	196(65.3%)	104(34.7%)	-
Feeling anxious or nervous	124(41.3%)	153(51%)	23(7.7%)
Poor memory	154(51.3%)	125(41.6%)	21(8%)
Accomplishing less than I used to	171(57%)	123(41%)	6(2%)
Feeling depressed, down, or blue	148(49.3%)	148(49.3%)	4(1.4%)
Being impatient with other people	131(43.7%)	172(51.2%)	15(5.1%)
Feeling of wanting to be alone	164(54.7%)	130(43.3%)	6(2%)
Physical symptom			
Passing gas or gas pain	79(26.3%)	161(53.6%)	60(20.1%)
Aching in muscles and joints	27(9%)	184(61.3%)	89(29.7%)
Feeling tired or worn out	67(22.3%)	172(57.3%)	61(20.4%)
Difficulty in sleeping	76(25.3%)	169(56.3%)	55(18.4%)
Aches in back of neck or head	107(35.7%)	133(44.3%)	60(20%)
Decreased in physical strength	33(11%)	183(61%)	84(28%)
Decrease in stamina	27(9%)	191(63.7%)	82(27.3%)
Lack of energy	50(16.7%)	186(62%)	64(21.4)
Dry skin	148(49.4%)	135(45%)	17(5.6%)
Weight gain	162(54%)	130(43.3%)	8(2.7%)
Increased facial hair	163(54.3%)	120(40%)	17(5.7%)
Changes in appearance, texture or tone of my skin	201(67%)	84(28%)	15(5%)
Feeling bloated	111(37%)	135(45%)	54(18%)
Low backache	37(12.3%)	168(56%)	95(31.7%)
Frequent urination	154(51.4%)	114(42%))	32(10.6%)
Involuntary urination when laughing or coughing	172(57.3%)	94(31.3%)	34(11.4%)
Sexual Symptoms			
Decrease in my sexual desire	266(88%)	30(10%)	4(2%)
Vaginal dryness	216(72%)	84(28%)	-
Avoiding intimacy	261(87%)	38(12.7%)	1(0.3%)

The table 2 shows that age is significantly associated with certain menopausal symptoms. A statistically significant association($p<0.001$) was observed between age and both psychosocial and sexual symptoms, with women aged 51–55 reporting a higher proportion of no effect on quality of life, suggesting reduced symptom burden in older participants. However, no significant association was found between age and vasomotor ($p = 0.553$) or physical symptoms ($p = 0.580$), as both age groups predominantly experienced moderate symptoms. These findings highlight that while age may influence specific menopausal domains, other factors likely contribute to the variation in symptom severity across the population.

Table 2: Table Showing Association between Age Group and Menopausal Symptoms

Vasomotor symptoms	No effect on QOL	Moderate effect on QOL	Severe effect on QOL	Total	Statistical analysis
45-50 years	78(45.6%)	59(34.6%)	34(19.8%)	171(100%)	**$\chi^2 = 1.182$**
51-55 years	67(52%)	39(30.2%)	23(17.8%)	129(100%)	**Df = 2, P = 0.553**
Psychosocial symptoms	**No effect on QOL**	**Moderate effect on QOL**	**Severe effect on QOL**	**Total**	**Statistical analysis**
45-50 years	80(46.7%)	90(52.6%)	1(0.7%)	171(100%)	**$\chi^2 = 14.632$**
51-55 years	84(65.2%)	41(31.7%)	4(3.1%)	129(100%)	**Df = 2, P<0.001**
Physical symptoms	**No effect on QOL**	**Moderate effect on QOL**	**Severe effect on QOL**	**Total**	**Statistical analysis**
45-50 years	37(21.6%)	123(71.9%)	11(6.5%)	171(100%)	**$\chi^2 = 1.087$**
51-55 years	30(23.2%)	87(67.4%)	12(9.4%)	129(100%)	**Df = 2, P= 0.580**
Sexual Symptoms	**No effect on QOL**	**Moderate effect on QOL**	**Severe effect on QOL**	**Total**	**Statistical analysis**
45-50 years	144(84.2%)	26(15.2%)	1(0.6%)	171(100%)	**$\chi^2 = 10.708$**
51-55 years	122(94.7%)	5(3.8%)	2(1.5%)	129(100%)	**df = 2, P<0.001**

*(P< .05 statistically significant, P < .001 Highly significant)

4. Discussion

In our study, in vasomotor domain among the study population, 35.7% reported of hot flushes on their quality of life, and 18% severe effects. Night sweats showed 37.6% reporting moderate and 15% severe effects. Sweating had 29% reported moderate and 20.7% severe effects. Similarly in a study by Kang et al[17] In the study population, 74.7% of participants experienced hot flushes or flashes. Night sweats were reported by 66.7% of women. Sweating was noted by 56.7% of respondents. These findings highlight the high prevalence of vasomotor symptoms among participants. In other study by Baral et al[18], Hot flashes and sweating were experienced by 64.3% of participants, indicating a common symptom among the study group. These vasomotor

symptoms were reported frequently by the majority of individuals.

The study revealed that the majority of participants experienced either no effect or moderate psychosocial symptoms. Specifically, 65.3% reported no dissatisfaction with personal life, while 34.7% experienced moderate effects. Anxiety or nervousness affected 51% moderately and 7.7% severely.

Additionally, 41.6% reported moderate memory problems, and 8% experienced severe difficulties, highlighting noteworthy psychosocial concerns among respondents. In a study by Sánchez-Rodríguez et al [19] psychosocial symptoms in postmenopausal women exhibited significantly lower self-esteem and quality of life compared to premenopausal women. Specifically, 32% of postmenopausal women reported low self-esteem versus 12% of premenopausal women ($p = 0.001$), while 74% experienced reduced quality of life compared to 60% in the premenopausal group ($p < 0.05$). Additionally, physical and social aspects of quality of life were adversely affected in 63% and 66% of postmenopausal women, respectively ($p < 0.01$). Furthermore, stress scores were consistently higher among postmenopausal women with psychological disturbances across all assessments, although statistical significance was observed only in the Self-Esteem Inventory (SEI) scores. The distribution of physical symptoms within the study population demonstrated varying degrees of severity. A substantial proportion of participants reported moderate effects for several symptoms, including passing gas or gas-related discomfort (53.6%), aching muscles and joints (61.3%), and difficulty sleeping (56.3%). Notably, severe effects were most frequently associated with symptoms such as low backache (31.7%), decreased physical strength (28%), and dry skin (5.6%). Additionally, commonly reported symptoms such as weight gain (54%), frequent urination (51.4%), and involuntary urination during actions like laughing or coughing (57.3%) were prevalent, with a significant percentage of participants experiencing these symptoms at moderate levels. Similarly, in a study by Barati et al[60] the evaluation of physical symptoms revealed a high prevalence of musculoskeletal discomfort and fatigue-related issues. Aching in muscles and joints (91.1%), lack of energy (87.8%), decreased physical strength (86.3%), and feeling tired or worn out (85.6%) were the most frequently reported complaints.

Additionally, a substantial proportion of participants experienced low backache (81.5%), difficulty sleeping (68.1%), and changes in skin appearance, texture, or tone (69.3%). Commonly reported urogenital symptoms included frequent urination (49.3%) and involuntary urination when laughing or coughing (51.5%). Flatulence, dry skin, weight gain, and bloating were also observed to varying extents.

In this study with regard to the decrease in sexual desire, 11% indicated a moderate effect, 3.7% experienced a severe effect, and 40% chose not to respond. In relation to vaginal dryness, 28% experienced moderate effects, with no participants reporting severe effects, and 40.7% did not provide an answer. Concerning the avoidance of intimacy, 12.7% experienced moderate effects and 0.3% reported severe effects.

In this study, a significant association was found between age group and the severity of vasomotor symptoms affecting quality of life ($p < 0.001$). However, no significant association was observed between age group and the impact of psychosocial symptoms ($p = 0.434$) or sexual symptoms ($p = 0.116$) on quality of life. In a study by Yisma et al[66], a statistically significant association was observed between age groups and symptom distribution ($p < 0.001$).

Participants were categorised into four age groups: 30–34, 35–39, 40–44, and 45–49 years. The findings indicate that symptom severity and frequency varied notably across these age categories.

5. Conclusion

This study demonstrates that menopause is influenced by multiple socio-demographic and lifestyle factors, with symptom severity varying widely across women. While many participants reported no or only moderate effects, a notable proportion experienced severe vasomotor, psychological, and physical symptoms that negatively impacted their quality of life. Vasomotor disturbances emerged as prominent contributors, while psychological symptoms such as depression, irritability, and social withdrawal were also significant. Sexual symptoms were less frequently reported, likely reflecting cultural stigma and underreporting.

Findings suggest that age alone does account for variations in symptom patterns, indicating the importance of broader determinants such as lifestyle, cultural context, and awareness. Overall, the study underscores the heterogeneous nature of menopausal experiences and highlights the need for targeted education, counseling, and integration of menopause-related care into public health programs to improve the quality of life of midlife women.

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