Original Article

Menopausal Symptoms and Menopausal Rating Scale among Midlife Women: A Hospital-based Study

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ABSTRACT

Background: Menopausal transition phase is a difficult time in a woman's life. Many factors such as age, socioeconomic status, education, ethnic cultural, and body physique determine the presence of menopausal symptoms. This study helps us to understand the severity and perseverance of menopausal symptoms in women of this locality. **Aims and Objectives:** The aim of the study was to find distribution and severity of menopausal symptoms by self-rated Menopause Rating Scale (MRS) through different transition phases of menopause in women aged between 40 and 60 years. **Methodology:** It is a hospital-based observational study. All the participants answered an 11-item MRS questionnaire. **Results:** Out of 300 participants, 106 belonged to premenopausal state, 111 to perimenopausal state, and 83 were postmenopause. Overall, 47% of participants had one or the other menopausal symptoms. Most of them had mild-to-moderate symptoms. Only 3% had severe symptoms. Somatic subscale was the maximum reported symptoms in our study group. The most common symptom was physical and mental exhaustion (55%) and the least common was sexual problems (8%). Difficulty in sleeping and bladder symptoms were more and statistically significant in postmenopausal group where as hot flushes and irritability were more common in perimenopausal group. **Conclusion:** Somatic subscale symptoms are more common than urogenital or psychosocial subscales. Postmenopause women manifested higher symptoms than premenopause or perimenopause group women and most were mild to moderate in severity in women visiting our hospital.

KEYWORDS: *Menopausal phases, menopause rating scale, menopause symptoms*

INTRODUCTION

Every woman passes through the phase of menopause in her middle age. Natural menopause occurs in between 45 and 55 years (average age: 51.5).[1] In India, it is found between 41.9 and 49.4 years (average age: 47.5).[2,3] According to Stages of Reproductive Aging Workshop (STRAW) + 10, the different menopausal stages are (1) premenopause – regular cycles of menstruation within the previous year, (2) perimenopause – irregular cycles but they only happened within a year, and (3) postmenopause – there has been no menstruation in the past 12 months.[4] This transition is a difficult time in a woman's life as they see a wide variety of metabolic, physical, and emotional symptoms which occur that can have a detrimental effect on her quality of life. Since the life expectancy of a woman has increased (average: 71.8 years),[1] a substantial portion of her life is spent in peri- and postmenopausal period. Hence, this study was done to understand the prevalence and severity of menopausal symptoms in our women between 40 and 60 years of age so that we get an idea of how to aid and counsel them as they enter this phase of life since most of our Indian women are unprepared and lack to cope with this problem.

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Aims and objectives

The aim of the study was to find the distribution and severity of menopausal symptoms by self-rated Menopause Rating Scale (MRS) through different transition phases of menopause in women aged between 40 and 60 years.

METHODOLOGY

MRS[5] is used as an assessment tool in this study. MRS is a standardized, widely used questionnaire whose reliability and validity have undergone in-depth analysis. It is a self-administered health-related quality of life that can be easily completed by the participants only. It enables symptom comparison and severity evaluation. It has a total of 11 symptoms. Among them, somatic symptoms are hot flushes, heart discomfort, sleep problems, and joint and muscular discomfort; psychological symptoms include depressive mood, irritability, anxiety, and physical and mental exhaustion; and urogenital symptoms are sexual problems, bladder problems, and dryness of the vagina. By ticking the appropriate box on a 5-point rating scale, the degree of the complaint for each item is indicated (0 – no complaints to 4 – extremely severe complaints). The composite scores for each dimension are summed up to get total scores.

Institutional ethical clearance (REG. NO. EC/NEW/INST/2020/834) was obtained. The study was explained, and informed consent was obtained from all participants. MRS which was translated into local languages (Kannada and Malayalam) was filled out by the participants. Their sociodemographic data were collected. The confidentiality of the information collected during the study was maintained.

All women aged between 40 and 60 years were included in the study. Pregnant and lactating women, women on hormone replacement therapy, and women with psychiatric illness were excluded from the study. Women from both outpatient and inpatient who consented to answer the questionnaire were recruited in the study. Participants are asked to mark the response which is closest to how she has been feeling or felt during her menopausal transition. No counseling regarding menopausal symptoms was offered. Sociodemographic details were collected by the investigator and the participants completed the questionnaire themselves. Except when participants did not know how to read and write in such case only the questionnaire was marked by the investigator. There was no time limit given for the participants to answer the questionnaire, and MRS questionnaire was collected once they finished marking it. The sample size was calculated at a 95% confidence interval and with precision of 0.05. The sample size of 266 was obtained from the formula ($n = Z^2p^2q^2/d^2$) with expected prevalence of 47%.

Statistical analysis

All the data were analyzed using IBM Statistical Packages for the Social Sciences, SPSS version 22 (Chicago, Illinois, USA). The Shapiro–Wilk test was used for the normality of the data. Continuous measurements were measured as frequency, mean, and standard deviation and categorical measurements were measured using number and percentage. The Chi-square test and Unpaired t-test were used to compare different types of measurements. Fisher's exact test was used when count is <5 in more than 20% of cells. $P < 0.05$ was considered statistically significant.

RESULTS

A total of 300 participated in the study. 106 (35.3%) belonged to premenopausal state, 111 (37%) to perimenopausal state, and 83 (27.7%) were postmenopause. Table 1 shows most of our participants belonged to the age group of 40–50 years (67.3%). Most of them were middle-class status (56.7%) and were either illiterate or completed their higher education and belonged to the overweight and obese group. Overall physical and mental exhaustion was the most common symptom 165 (55%), followed by difficulty falling asleep 115 (38%), bladder problems 110 (36%), and hot flushes 105 (35%). The least common symptom is sexual problems 24 (8%). Symptoms belonging to the somatic subscale were a total of 381, followed by psychological 337 and urogenital was 210. Hot flushes were more in perimenopausal group 48 (43.2%) compared to premenopausal group 29 (27.4%) and postmenopausal group 28 (33.7%), which was statistically significant ($P = 0.047$). Difficulty in falling asleep was statistically significant ($P = 0.037$) and was maximum in postmenopausal group 41 (49.4%). Irritability was significantly common in peri-menopausal group 50 (45%) with $P = 0.002$. Bladder problems were more commonly seen in postmenopausal group 43 (51.8%) and were statistically significant with $P = 0.003$. All other symptoms were more or less same in all the groups and did not show any statistical significance [Table 2].

Table 3 shows that postmenopausal group (55.4%) had maximum symptoms compared to premenopausal (39.6%) and perimenopausal (47.7%) groups. Among them, most of them had mild 87 (29%) to moderate 45 (15%) amounts of severity. Only 3% had severe symptoms [Figure 1].

Table 1: Sociodemographic profile of study participants

	Premenopause, n (%)	Perimenopause, n (%)	Postmenopause, n (%)	Total, n (%)
Age group (years)				
40–45	80 (75.5)	20 (18)	2 (2.4)	102 (34)
46–50	22 (20.8)	72 (64.9)	6 (7.2)	100 (33.3)
51–55	3 (2.8)	17 (15.3)	18 (21.7)	38 (12.7)
56–60	1 (0.9)	2 (1.8)	57 (68.7)	60 (20)
Educational status				
Illiterate	16 (15.1)	29 (26.1)	38 (45.8)	83 (27.7)
Primary	6 (5.7)	4 (3.6)	10 (12)	20 (6.7)
Higher secondary	44 (41.5)	35 (31.5)	30 (36.2)	109 (36.3)
Graduate	40 (37.7)	43 (38.7)	5 (6)	88 (29.3)
Socioeconomic status (modified Kuppuswamy score)				
Lower (1–10)	15 (14.2)	20 (18)	22 (26.5)	57 (19)
Middle (11–25)	60 (56.6)	59 (53.2)	51 (61.4)	170 (56.7)
Upper (26–29)	31 (29.2)	32 (28.8)	10 (12)	73 (24.3)
BMI classification				
Underweight (<18.5 kg/m^2)	10 (9.4)	3 (2.7)	11 (13.3)	24 (8)
Normal (18.5–24.9 kg/m^2)	28 (26.4)	25 (22.5)	31 (37.3)	84 (28)
Overweight (25–29.9 kg/m^2)	27 (25.5)	23 (20.7)	13 (15.7)	63 (21)
Obese (>30 kg/m^2)	41 (38.7)	60 (54)	28 (33.7)	129 (43)

BMI: Body mass index

Table 2: Comparison of symptoms in different phases among study participants

Subscale and symptoms	Premenopausal (n=106), n (%)	Peri-menopausal (n=111), n (%)	Postmenopausal (n=83), n (%)	Total, n (%)	P
Somatic subscale					
Hot flushes	29 (27.4)	48 (43.2)	28 (33.7)	105 (35)	0.047
Heart discomfort	24 (22.6)	35 (31.5)	29 (34.9)	88 (28)	0.149
Difficulty falling asleep	42 (39.6)	32 (28.8)	41 (49.4)	115 (38)	0.031
Muscle and joint problem	21 (19.8)	17 (15.3)	16 (19.3)	54 (18)	0.647
Total				381	
Psychological subscale					
Depressive mood	23 (21.7)	31 (27.9)	21 (25.3)	75 (25)	0.569
Irritability	26 (24.5)	50 (45)	22 (26.5)	98 (32)	0.002
Anxiety	19 (17.9)	19 (17.1)	12 (14.5)	50 (16)	0.807
Physical and mental exhaustion	57 (53.8)	65 (58.6)	43 (51.8)	165 (55)	0.614
Total				337	
Urogenital subscale					
Sexual problems	8 (7.5)	11 (9.9)	5 (6)	24 (8)	0.601
Bladder problems	35 (33)	32 (28.8)	43 (51.8)	110 (36)	0.003
Dryness of vagina	16 (15.1)	19 (17.1)	11 (13.3)	46 (15)	0.758
Total				210	

DISCUSSION

Menopause can have a significant impact on the quality of life of a woman. More than 80% of women experience physical and psychological symptoms. Menopause-related issues are no longer brushed aside as inevitable side effects of aging as effective treatment options are readily available nowadays.

According to certain studies, menopausal symptoms are exacerbated in perimenopause and tend to decrease in the postmenopause and only vasomotor symptoms are more in postmenopause,[6,7] whereas other studies have observed postmenopause present with higher symptoms than their counterparts in perimenopause.[8] We investigated in our hospital, a population of 40–60 years aged women who came seeking health care in our hospital. Hot flushes were common in perimenopausal age group (especially in 46–55 years), which was significantly more compared to the other two groups. Irritability also was more in perimenopausal group.

Table 3: Comparison of Menopause Rating Scale severity scoring in different phases among study participants

MRS severity scoring	Premenopausal	Perimenopausal	Postmenopausal	Total
No or little symptoms (0–4)	64 (60.4)	58 (52.3)	37 (44.6)	159 (53)
Mild symptoms (5–8)	29 (27.4)	31 (27.9)	27 (32.5)	87 (29)
Moderate symptoms (9–15)	9 (8.5)	17 (15.3)	19 (22.9)	45 (15)
Severe symptoms (16+)	4 (3.8)	5 (4.5)	0	9 (3)
Total	106 (100)	111 (100)	83 (100)	300 (100)
P		0.036		

MRS: Menopause Rating Scale
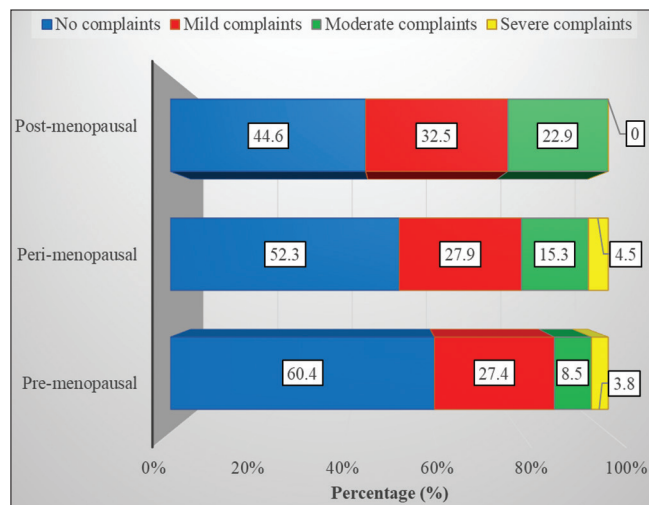
Figure 1: Comparison of Menopause Rating Scale severity scoring with menopausal status among study participants

Bladder problems and difficulty falling asleep were more in postmenopausal group. Physical and mental exhaustion was found to be the most commonly occurring symptom (55%) in all groups, followed by difficulty in falling asleep (38%), bladder problems (36%), and hot flushes (35%). Sexual problems (8%), dryness of the vagina (15%), and anxiety (16%) were the least common symptoms reported. The somatic subscale was more prevalent in our study participants followed by the psychological and urogenital subscale.

Yisma et al.[8] conducted a similar study on 226 participants between 30 and 49 years of age in Ethiopia. They too found somatic subscale symptoms were predominant, followed by psychological and urogenital symptoms similar to our study. Hot flushes (65.9%) were the most often reported symptom, followed by trouble sleeping (49.6%), depressed mood (46%), irritability (45.1%), and anxiety (39.8%). Heart discomfort (22.1%), bladder problems (26.1%), and sexual problems (27%) were the least common symptoms.

Chou et al.[9] conducted a study on 442 Chinese women aged 40–60 years. The four most common symptoms experienced by their women were physical and mental exhaustion (90.3%), joint and muscle discomfort (88.5%), irritability (78.1%), and sleep problems (77.1%). In this study, it is noticed that women had a high incidence of symptoms compared to all other studies.

A study done on Chinese middle-aged women showed a prevalence of 73.8% menopausal symptoms among them. It was observed perimenopausal and postmenopausal women had maximum symptoms, but only 25.97% sought health-care help. Employment, modified Kupperman Menopausal Index (mKMI) score were significantly associated with health-care-seeking behavior.[4]

Sharma et al.[10] studied only on postmenopausal women with a total of 203 participants and found majority reported milder symptoms, 143 (70.4%). The most prevalent moderate and mild symptoms were vaginal dryness 94 (46.3%) and depressive mood 71 (35%). Overall, in all forms, physical and mental exhaustion (86.2%), dryness of the vagina (85.7%), followed by muscle and joint discomfort (77.8%), were commonly reported symptoms. The psychological subscale (67.87%) was more prevalent, followed by urogenital and somatic subscales in their study.

Pandey et al.[11] used MRS and found depressive mood was the most prevalent symptom in their population, appearing in 52.4% of participants followed by joint and muscle pain in 46.6% and bladder problems in 46%.

The other measurement scales used for assessing menopausal symptoms include the Kupperman index (mKMI), Greene Climacteric Scale, menopause-specific quality of life, and Women's Health Questionnaire, which are equally good and widely used. Many studies have used these as an assessment tool.

The limitations of this study include it is a cross-sectional study. The number of participants included is less in number and it is not a community-based study. However, we do get an idea regarding menopausal symptoms faced by the women of this area and they do represent the health needs of the women of this area.

CONCLUSION

Somatic subscale symptoms were more common than urogenital or psychosocial subscales in women of this area. Postmenopause women manifested higher symptoms than premenopause or perimenopause group women. Symptoms, if present, were mostly mild-to-moderate in severity. Hot flushes and irritability were more prevalent in perimenopausal group, whereas bladder problems and difficulty falling asleep were seen in postmenopausal group. This provides an understanding of the health demands of women of this area in different transition phases of their lives.

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Conflicts of interest

There are no conflicts of interest.

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