



## ASSESSMENT OF MENOPAUSAL SYMPTOMS USING MODIFIED MENOPAUSE RATING SCALE (MRS) IN PERIMENOPAUSAL WOMEN IN TERTIARY CARE HOSPITAL IN KARNATAKA

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### ABSTRACT

**Background:** Menopause symptoms, in spite of being a normal physiological process can sometimes cause symptoms which can be severe and can affect everyday life. It is a cause for concern that many women are unaware of certain menopausal symptoms. **Objectives:** The objective of the present study is to assess the menopausal symptoms using modified Menopause Rating Scale (MRS) in perimenopausal women. **Methods:** It is a cross-sectional study where menopausal rating scale (MRS) questionnaire was used to assess the menopausal symptoms. **Results:** In the present study 52% of the patients experienced hot flushes out of which 53.8% had mild symptoms, 34.6% had moderate and 7.6% had severe and only 3.8% had very severe symptoms. 18 % experienced chest discomfort 65 % of the patients experienced sleep problems 29 % of the patients experienced depressive mood. 50 % of the patients experienced irritability out of which 24 % had mild symptoms, 56 % had moderate and 8 % had severe and only 12 % had very severe symptoms. 72 % of the patients experienced physical and mental exhaustion, 26 % of the patients experienced sexual problems, 19 % of the patients bladder problems, 50 % of the patients experienced vaginal dryness, 88 % of the patients experienced irritability. **Conclusion:** In the present study the most common symptom reported was joint and muscular discomfort followed by depressive mood heart discomfort and physical and mental exhaustion and hot flushes. The urogenital symptoms were comparatively less. The women in perimenopausal age group make large part of the population, although there is lot of emphasis that is given for improvement of health of the women in reproductive age group, the women in perimenopausal age group need the same amount of care.

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## INTRODUCTION

Menopause is defined as complete cessation of menstruation for twelve months or more as a result of complete loss of ovarian follicular activity. The word "Menopause" derived from the Greek "meno" (month) and "pauis" (pause) meaning the cessation of monthly period cycle. As the life expectancy has increased due to the advancements in medical care, women are now expected live a significant part of their life in state of menopause.

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Menopause symptoms, in spite of being a normal physiological process can sometimes cause symptoms which can be severe and can affect everyday life. It is a cause for concern that many women are unaware of certain menopausal symptoms.<sup>1</sup> As the woman approaches the menopausal age the depletion of the estrogen levels causes these symptoms, these symptoms can also be experienced by the women in perimenopausal phase. The mean age of menopause ranges from 40-65 years. Various symptoms; like, Vasomotor, urogenital, psychosomatic, psychological as well as sexual dysfunction are experienced by lot of women, the post-menopausal women also have complaints of osteoporosis and cardiovascular changes due to long term estrogen deficiency.<sup>1,2</sup> In Indian women the average age of menopause is 47.5 years according to Indian Menopause Society (IMS) research, this in contrast to their western counterparts where the mean age of menopause is 51 years.

So, menopausal health needs to be given high priority in Indian scenario.<sup>3</sup>The objective of the present study is to assess the menopausal symptoms using modified Menopause Rating Scale (MRS) in perimenopausal women.

## MATERIAL AND METHODS

**STUDY DESIGN:** The present study is an observational cross sectional study.

**STUDY POPULATION:** Women between the age of 40-65 years who attended the OPD or IPD of Department of Gynecology of the tertiary hospital in Karnataka, who consented for the study were included in the study.

**SAMPLE SIZE:** Considering prevalence of hot flushes to be 53.3% as per study by Fareha Khatoon et al<sup>4</sup> and, taking confidence limit as 10% and confidence level of 95% and using OPEN EPI 2.3.1 software the sample size was calculated to be 96 which was rounded off to 100. A total of 100 women in age group of 40-65 years were considered for the study. The exclusion criteria for the study subjects were pregnant and breast-feeding women, women with uncontrolled medical conditions such as hypertension, diabetes mellitus, heart disease, cancer, history of drug or alcohol abuse, on hormone replacement therapy. In the present study menopausal rating scale(MRS) questionnaire was used to assess the menopausal symptoms. MRS is a self-administered instrument which is a validated scale and has been used in many clinical and epidemiological studies.<sup>5</sup>It is having 11 items and is divided into three sub scales:

- **Somatic symptoms:** Which include hot flushes, heart discomfort/palpitation, sleeping problems and muscle and joint problems.
- **Psychological symptoms:** Depressive mood, irritability, anxiety and physical and mental exhaustion.
- **Urogenital symptoms:** Sexual problems, bladder problems and dryness of the vagina.

Each of the 11 symptoms are scored on Likert scale of "0" (no complaints) to "4" (very severe symptoms). Socio demographic data which included age, religion, marital status, educational level, occupation and average household income was collected. The women were explained about the study and informed consent was taken from them, a trained interviewer interviewed the women about the menopausal symptoms in a comfortable surroundings. Confidentiality was maintained at all times

**Statistical analysis:** The data was entered in MS excel 2016 and analysis was done using open epi 2.3.1. Statistical analysis was done using the Chi square test. P value of less than 0.05 was considered statistically significant. The results were presented in form of proportions and percentages and represented in form of tables.

## RESULTS

In the present study majority of the participants belonged to the age group of 46-50% which made up of 35% followed by 40-45 years which made up about 23% followed by 51-55 years (22%) only 15% belonged to 56-60 years.

Majority of the participants were married i.e. 88% followed by 11% who were widowed and 1% were unmarried. About 45% of the participants were educated up to high school followed by graduates and 18% were educated till primary school. 12% were illiterate and 5% were educated till post graduate level. Majority of the participants belonged to class 3 of BG Prasad socio economic group 23% belonged to class 4, 12% belonged to class 1. In the present study 52% of the patients experienced hot flushes out of which 53.8% had mild symptoms, 34.6% had moderate and 7.6% had severe and only 3.8% had very severe symptoms. In the present study 18% of the patients experienced chest discomfort out of which 66% had mild symptoms, 22.2% had moderate and 11.2% had severe and none of them had very severe symptoms. In the present study 65% of the patients experienced sleep problems out of which 50.7% had mild symptoms, 20% had moderate and 15.5% had severe and only 13.8% had very severe symptoms. In the present study 29% of the patients experienced depressive mood out of which 44.8% had mild symptoms, 37.9% had moderate and 6.8% had severe and only 10.5% had very severe symptoms. In the present study 50% of the patients experienced irritability out of which 24% had mild symptoms, 56% had moderate and 8% had severe and only 12% had very severe symptoms.

In the present study 50% of the patients experienced irritability out of which 24% had mild symptoms, 56% had moderate and 8% had severe and only 12% had very severe symptoms. In the present study 62% of the patients experienced anxious feelings or were anxious out of which 29% had mild symptoms, 35.4% had moderate and 25.8% had severe and only 22.5% had very severe symptoms. In the present study 72% of the patients experienced physical and mental exhaustion out of which 9.7% had mild symptoms, 44.4% had moderate and 20.8% had severe and only 25% had very severe symptoms. In the present study 26% of the patients experienced sexual problems out of which 30.7% had mild symptoms, 42.3% had moderate and 15.5% had severe and only 11.5% had very severe symptoms. In the present study 19% of the patient's bladder problems out of which 39% had mild symptoms, 36.5% had moderate and 14.6% had severe and only 9.7% had very severe symptoms. In the present study 50% of the patients experienced vaginal dryness out of which 39% had mild symptoms, 36.5% had moderate and 14.6% had severe and only 9.7% had very severe symptoms. In the present study 88% of the patients experienced irritability out of which 25% had mild symptoms, 29.5% had moderate and 24% had severe and only 21.5% had very severe symptoms.

## DISCUSSION

The mean age of menopause in the present study was 48.45±5.17 years which was lower when compared to the study by Fareha Khatoon<sup>4</sup> where the mean age at menopause was 50.33 years+5.26 years these were earlier when it was compared with to western studies which is around 51.14+2.11 years.<sup>6</sup>The average age of menopause by studied by Indian menopause society is around 47.5 years, our studies had higher average age of menopause.<sup>3</sup> In other studies, the mean age of menopause ranged between 49.4 to 51.1 years. The studies from Thailand showed 48.7 years and Singapore showed 49.1 years and other studies on Asian women our findings also show similar age of menopause.<sup>5,7-10</sup>

**Table 1. Showing the sociodemographic details of the patients**

	NUMBER OF PATIENTS	PERCENTAGE
<b>AGE AT MENOPAUSE</b>		
40-45 years	23	23%
46-50 years	35	35%
51-55 years	22	22%
56-60 years	15	15%
Total	100	100%
<b>MARITAL STATUS</b>		
Married	88	88%
Unmarried	1	1%
Divorced	0	0
widow	11	11%
Total	100	100%
<b>EDUCATION LEVEL</b>		
Uneducated	12	12%
Primary	18	18%
High school	45	45%
Graduate	20	20%
Post graduate	5	5%
Total	100	100%
<b>SOCIO ECONOMIC CLASS</b>		
Class 1	10	10%
Class 2	14	14%
Class 3	35	35%
Class 4	23	23%
Class 5	18	18%
Total	100	100%

**Table 2. Showing frequency of menopausal symptoms assessed by mrs**

SYMPTOMS	NO OF PATIENTS	MILD	MODERATE	SEVERE	VERY SEVERE
HOT FLUSHES	52	28(53.8%)	18(34.6%)	4(7.6%)	2(3.8%)
CHEST DISCOMFORT	18	12(66.6%)	4(22.2%)	2(11.2%)	0
SLEEP PROBLEMS	65	33(50.7%)	13(20%)	10(15.5%)	9(13.8%)
DEPRESSIVE MOOD	29	13(44.8%)	11(37.9%)	2(6.8%)	3(10.5%)
IRRITABILITY	50	12(24%)	28(56%)	4(8%)	6(12%)
ANXIOUS FEELING	62	18(29%)	22(35.4%)	16(25.8%)	14(22.5%)
PHYSICAL AND MENTAL EXHAUSTION	72	7(9.7%)	32(44.4%)	15(20.8%)	18(25%)
SEXUAL PROBLEMS	26	8(30.7%)	11(42.3%)	4(15.5%)	3(11.5%)
BLADDER PROBLEMS	19	6(31.5%)	8(42.3%)	3(15.7%)	2(10.5%)
VAGINAL DRYNESS	41	16(39%)	15(36.5%)	6(14.6%)	4(9.7%)
MUSCULAR AND JOINT PAIN	88	22(25%)	26(29.5%)	21(24%)	19(21.5%)

In the present study Majority of the participants belonged to class 3 of BG Prasad socio economic group 23% belonged to class 4 , 12% belonged to class1.few studies have shown thatmenopausal symptoms are inversely related with educational level.<sup>11-13</sup> Lee et al , found that income was related to the educational level and low income could be one of the risk factors for more severe menopausal symptoms.<sup>14</sup> Joseph et al they found contradicting results where educated women were having more menopausal symptoms.<sup>15</sup> In the present study the most prevalent symptoms was joint and muscle pain, which was 88% Fareha Khatoon et al<sup>4</sup> also found that the most prevalent menopausal symptom was joint and muscular pain. This finding was consistent with many other studies. Cheng et al and Hafiz et al noted that joint and muscular pain as the major symptoms .<sup>16,17</sup> Joint and muscular pain was the most prevalent symptom in a study by Rahman et al<sup>5</sup>. In the present study 52% of the patients experienced hot flushes out of which 53.8% had mild symptoms, 34.6% had moderate and 7.6% had severe and only 3.8% had very severe symptoms. In a study by Rahman et al 41.6% of women had hot flushes and night sweats<sup>5</sup> In a study done by Fareha Khatoon<sup>4</sup> sweating and night sweats were found in 53% of respondents. Which was consistent with our study. one of the study form Turkey by Yanikkerem et al found that hot flushes was experienced by 79.6% of study participants .<sup>18</sup>

In the present study, 65 % of the patients experienced sleep problems , 29 % of the patients experienced depressive mood ,50 % of the patients experienced irritability ,62 % of the patients experienced anxious feelings ,72 % of the patients experienced physical and mental exhaustion ,26 % of the patients experienced sexual problems ,19 % of the patients bladder problems ,50 % of the patients experienced vaginal dryness , 88 % of the patients experienced irritability. In a study by Pal A et al, the prevalence of physical and mental exhaustion was found to be much higher (86%).<sup>19</sup> The urogenital problems like sexual problems (20%) and dryness of vagina were found to be less prevalent and if present then the symptoms were mild. Avanie pal et al found in their study that bladder problem (56%) and vaginal dryness (53.3%) were much prevalent.<sup>19</sup> In study by Fareha Khatoon<sup>4</sup> depressive mood was seen in 70% of participants, physical and mental exhaustion (60%) Heart discomfort (60.3%) and sleep problem (56%). Rahman et al also found similar results when looking at physical and mental exhaustion (67%) and sleep problem (52%) however depressive mood (32%) heart discomfort (18%).<sup>5</sup> There is variation in the prevalence of menopausal symptoms probably due to the role played by lifestyle, culture,traditions .<sup>18</sup>The Depressive, anxious, joint an muscle pain seems to be predominant symptomsinall the studies, which points towards the greateremphasis on the mental and emotion health need in the perimenopausal age group.

## CONCLUSION

In the present study the most common symptom reported was joint and muscular discomfort followed by depressive mood heart discomfort and physical and mental exhaustion and hot flushes. The urogenital symptoms were comparatively less. The women in perimenopausal age group make large part of the population, although there is lot of emphasis that is given for improvement of health of the women in reproductive age group, the women in perimenopausal age group need the same amount of care. Apart from the physical symptoms there is need to emphasize the care for the mental and psychological need of the women in this age group. Therefore, a multidisciplinary integrated approach is needed to improve the health status of this age group.

Conflict of Interest - None

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