



## MENOPAUSAL SYMPTOMS IN PERIMENOPAUSAL AGE GROUP WOMEN IN TERTIARY CARE HOSPITAL IN DELHI - A CROSS SECTIONAL STUDY

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**ABSTRACT** **Background:** Menopause is a natural phenomenon occurring in the women of age group of 40 and 55 years and occurs due to the changes in hormonal status and the menstrual cycle also ceases gradually. It is a matter of concern that many women are unaware of certain menopausal symptoms. Although the duration, severity, and impact of these symptoms vary amongst various population. women may experience severe symptoms which interferes with their personal and social functioning, and quality of life while others may have only mild symptoms.

**Objectives:** The objective of the present study is to assess the menopausal symptoms using modified Menopause Rating Scale (MRS) in perimenopausal women.

**Methods:** The present study is an observational cross sectional study

**Results:** In the present study 46% of the patients experienced hot flushes out of which 50% had mild symptoms, 19.5% had moderate and 17% had severe and only 13.5% had very severe symptoms. 24 % experienced chest discomfort 64 % of the patients experienced sleep problems 31 % of the patients experienced depressive mood. 44 % of the patients experienced irritability. 76 % of the patients experienced physical and mental exhaustion ,24 % of the patients experienced sexual problems ,14 % of the patient's bladder problems ,36 % of the patients experienced vaginal dryness.

**Conclusion:** The health of women in perimenopausal age group need the same amount attention as women in reproductive age group, which is given lot of emphasis. The mental and psychological aspect of health of perimenopausal women need emphasis. Therefore, integrated and a multidisciplinary approach along with health education is needed to improve the health status of this age group.

**KEYWORDS :** Menopause, Menopausal Rating Scale, Perimenopausal women

### INTRODUCTION

Menopause is a natural phenomenon occurring in the women of age group of 40 and 55 years and occurs due to the changes in hormonal status and the menstrual cycle also ceases gradually. Worldwide, it is expected that by the year 2030, approximately 1.2 billion women will be in the of menopausal or postmenopausal age group and also there will be about 47 million new women entering this category each year.

As there is advancement in medical care, the life expectancy of the women has also increased, women now live a substantial period of life in state of menopause. The symptoms of menopause are normal physiological process, but they cause severe symptoms and can affect everyday life. It is a matter of concern that many women are unaware of certain menopausal symptoms<sup>1</sup>.

During the period of menopause, the women experience multiple symptoms like, Hot flushes and sweating, sleep problem, musculoskeletal pain, Psychological symptoms which include Depressive mood, irritability, anxiety, mental, and physical exhaustion and many symptoms affecting the urogenital system, like Sexual problems, bladder problems, dryness of vagina. Although the duration, severity, and impact of these symptoms vary amongst various population. women may experience severe symptoms which interferes with their personal and social functioning, and quality of life while others may have only mild symptoms<sup>2</sup>.

The Indian menopause society has reported that the average age of menopause is 47.5 years in Indian, whereas the average age of menopause in western parts is 51 years. There are many health programs addressing the reproductive age group of women, but it is also important to address the menopausal health Indian women.<sup>3</sup> The objective of the present study is to assess the menopausal symptoms using modified Menopause Rating Scale (MRS) in perimenopausal age group women.

### MATERIAL AND METHODS

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

**STUDY POPULATION:** Women between the age of 40-55 years who attended the OPD or IPD of Department of Gynecology of the tertiary hospital in Delhi and who consented to take part in the study were included in the study

### SAMPLE SIZE:

The sample size was calculated using OPEN EPI 2.3.1 software, A study by Fareha Khatoon et al<sup>4</sup> reported that 53.3% of study subjects had hot flushes, taking prevalence as 53.3% and, taking confidence limit as 10% and confidence level of 95% and the sample size was calculated to be 96 which was rounded off to 100. A total of 100 women in age group if 40-65 years were considered for the study

Women who were pregnant or breast-feeding, women with uncontrolled medical conditions such as hypertension, diabetes mellitus, heart disease, cancer, history of drug or alcohol abuse, or hormone replacement therapy were excluded from the study.

To assess the menopausal symptoms in the present study, Menopausal Rating Scale(MRS) was used. 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.

**TABLE 1** SHOWING THE SOCIODEMOGRAPHIC DETAILS OF THE PATIENTS

	NUMBER OF PATIENTS	PERCENTAGE
<b>AGE AT MENOPAUSE</b>		
40-45 years	33	33%
46-50 years	40	40%
51-55 years	27	27%
Total	100	100%
<b>MARITAL STATUS</b>		
Married	86	86%
Unmarried	3	3%
Divorced	4	4%
widow	7	7%
Total	100	100%
<b>EDUCATION LEVEL</b>		
Illiterate	0	0%
Primary	11	11%
High school	44	44%
Graduate	30	30%
Post graduate	15	15%
Total	100	100%
<b>SOCIO ECONOMIC CLASS</b>		
Class 1	20	20%
Class 2	34	34%
Class 3	26	26%
Class 4	12	12%
Class 5	8	8%
Total	100	100%

**TABLE NO 2** SHOWING FREQUENCY OF MENOPAUSAL SYMPTOMS ASSESSED BY MRS.

Symptoms	No of Patients	Mild	Moderate	Severe	Very Severe
Hot Flashes	46	23(50%)	9(19.5%)	8(17%)	6 (13.5%)
Chest Discomfort	24	12(50%)	4 (16.5%)	6 (25%)	2 (8.5%)
Sleep Problems	64	27(42%)	22(34.5%)	8 (12.5%)	7 (11%)
Depressive Mood	31	19(61.2%)	3(9.8%)	9(29%)	0 (0%)
Irritability	44	18(41%)	9(22%)	14(31.8%)	3(5.2%)
Anxious Feeling	71	42(59.2%)	12(17%)	9(12.6%)	8(11.2%)
Physical and Mental Exhaustion	76	23(30.3%)	36(47.3%)	12(15.7%)	5(6.7%)
Sexual Problems	24	12 (50%)	5(20.8%)	4(16.6%)	3(12.6%)
Bladder Problems	14	4(28.8%)	8 (57 %)	2(14.2%)	0 (0%)
Vaginal Dryness	36	19(52.7%)	9 (25%)	3(8.3%)	5(14%)
Muscular and Joint Pain	83	39(47%)	24 (29%)	12 (14.4%)	8(9.6%)

## RESULTS

In the present study 40% of the study participants were in the age group of 46-50 years, 33% of the women belonged to 40-45 years' age group and 27% belonged to the age group of 51-55 years. 86% of the study subjects were married 7% were widowed 3% were unmarried and 4% were divorced. Majority of the study participants had completed high school education i.e. 44% followed by 30% of women who were graduates, 15% of women were post graduates and 11% had completed primary education, none of the participants were illiterates. Majority, i.e. 34% of the participants belonged to the class 2 socio economic status of B G Prasad Socio economic scale, followed by 26%, who belonged to class 3 status, 20% belonged to class 1, followed by class 4 of 12% and only 8% belonged to class 5. In the present study 46% of the patients experienced hot flushes out of which 50% had mild symptoms, 19.5% had moderate and 17% had severe and 13.5% had very severe symptoms. 24% of the patients experienced chest discomfort out of which 50% had mild symptoms, 16.5% had moderate and 25% had severe and 8.5% of them had very severe

symptoms.

In the present study 64% of the patients experienced sleep problems out of which 42% had mild symptoms, 34.5% had moderate and 25% had severe and only 8.5% had very severe symptoms. In the present study 31% of the patients experienced depressive mood out of which 61.2% had mild symptoms, 9.8% had moderate and 29% had severe and none of them had very severe symptoms. In the present study 44% of the patients experienced irritability out of which 41% had mild symptoms, 22% had moderate and 12.5% had severe and only 11% had very severe symptoms. 71% of the patients, in the present study experienced anxious feelings or were anxious out of which 59.2% had mild symptoms, 17% had moderate and 12.6% had severe and 11.2% had very severe symptoms. Physical and mental exhaustion was seen in 76% out of which 30.3% had mild symptoms, 47.3% had moderate and 15.7% had severe and only 6.7% had very severe symptoms. In the present study 24% of the patients experienced sexual problems out of which 50% had mild symptoms, 20.8% had moderate and 16.6% had severe and only 12.6% had very severe symptoms. 14% of the patient's experienced bladder problems out of which 28.8% had mild symptoms, 57% had moderate and 14.2% had severe and none of them had very severe symptoms. Vaginal dryness was experienced by 36% of the women, out of which 52.7% had mild symptoms, 25% had moderate and 8.3% had severe and 14% had very severe symptoms. In the present study 83% of the patients experienced muscular and joint pain out of which 47% had mild symptoms, 29% had moderate and 14.4% had severe and 9.6% had very severe symptoms.

## DISCUSSION

In our study the participants mean age of attainment of menopause was  $47.76 \pm 4.34$  years, in another study done in women of Northern India<sup>4</sup>, the mean age at menopause was 50.33 years+5.26 years. In a study by Scientific Group on Research on the Menopause by WHO the mean age of menopause was 51.14+2.11 years.<sup>6</sup> Indian menopause society reported that the average age of menopause was 47.5 years.<sup>3</sup>

The mean age of menopause ranged between 49.4 to 51.1 years in many studies. Asian studies done in Thailand showed mean age of menopause at 48.7 years and studies done in Singapore showed age of menopause at 49.1 years and many studies done in Asian population showed similar age of menopause<sup>5,7-10</sup>.

In the present study Majority of the participants belonged to class 2 of BG Prasad socio economic group. it was reported in few studies that the menopausal symptoms are inversely related with educational level.<sup>11-13</sup> A crosssectional study done in Korean found that low educational level and low income could be risk factors for more severe menopausal symptoms.<sup>14</sup> In contrast to this, a study done in southern India by Joseph et al, reported that educated women were having more menopausal symptoms.<sup>15</sup> 83% of women in the present study reported the symptoms of joint and muscle pain, similar results were found by Fareha Khatoon et al<sup>4</sup>. This finding was consistent with many other studies. In a study by Cheng et al and Hafiz et al similar findings were seen.<sup>16,17</sup> Joint and muscular pain was the most prevalent symptom in a study by Rahman et al<sup>5</sup>. Hot flushes were experienced by 46% of the patients in our study. In a Malaysian study by Rahman et al, 41.6% of women had hot flushes and night sweats<sup>5</sup>.

The findings of our study was consistent with study done by Fareha Khatoon<sup>4</sup> where sweating and night sweats were found in 53% of respondents. A study by Yanikkerem et al in Turkey found that hot flushes was experienced by 79.6% of study participants.<sup>18</sup>

In the present study, 76% of the patients experienced physical and mental exhaustion, 24% of the patients experienced sexual problems, 64% of the patients experienced sleep problems, 31% of the patients experienced depressive mood, 44% of the patients experienced irritability, 71% of the patients experienced anxious feelings, 14% of the patients bladder problems, 36% of the patients experienced vaginal dryness.

The prevalence of physical and mental exhaustion was found to be much higher i.e. 86% in a study by Pal A et al<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. In the same study bladder problem were seen in 56% and vaginal dryness in 53.3% of study population.<sup>19</sup>

Depressive mood was seen in 70% of participants, physical and mental

exhaustion in 60% ,Heart discomfort in 60.3% , sleep problem in 56% in study by Fareha Khatoon<sup>4</sup>.

Rahman et al found that physical and mental exhaustion was seen in 67% of women and sleep problem in 52%, depressive mood was seen in 32% and heart discomfort 18%.<sup>5</sup>

The prevalence of menopausal symptoms varied among the different populations, this was probably due to the influence of traditions, beliefs and lifestyle<sup>18</sup>. It was a common finding that the Depressive, anxious, joint and muscle pain were predominant symptoms in all the studies, which points to the fact that emotional and mental health need to be addressed in the perimenopausal age group.

## CONCLUSION

The health of women in perimenopausal age group need the same amount attention as women in reproductive age group, which is given lot of emphasis. The mental and psychological aspect of health of perimenopausal women need emphasis. Therefore, integrated and a multidisciplinary approach along with health education is needed to improve the health status of this age group.

**Conflict of Interest** - None

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