

# A Study on Comparison of Menopause Rating Scale (MRS) in Middle Aged Women of Amritsar, Punjab, India

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## ABSTRACT

**Introduction:** Menopausal period has an important role in the reproductive life of a woman and gives rise to many physical and mental problems. So, the present study was conducted to compare the Menopause Rating Scale (MRS) in Middle Aged Women of Amritsar, Punjab, India.

**Methods:** The present study was conducted on a total of 802 middle aged women and was selected purposively as samples from Civil Hospital, Amritsar and Guru Nanak Dev Hospital, Amritsar, Punjab, India. On the basis of their menstruation regularities, these women were divided into two categories viz., pre-menopausal women (n=403) and post-menopausal women (n=399). The Menopause Rating score (MRS) questionnaire was used to measure the health related quality of life both in pre- and post-menopausal women. The questionnaire was completed during face-to-face interviews.

**Results:** Results of the present study showed that post-menopausal women had higher percentage (%) of Menopause Rating Score (MRS) viz., mild (12.53%), moderate (32.83%), severe (50.12%) and very severe symptoms (4.51%) as compared to their pre-menopausal counterparts (27.79%, 69.47%, 2.48% and 0.02% respectively). Statistically significant association ( $p < 0.001$ ) was found between menopause rating score and middle aged women of Amritsar.

**Conclusion:** The distribution of severity of menopausal symptom was different in both the groups. Post-menopausal women showed higher percentage in severity of symptoms as compared to their pre-menopausal counterparts.

**Keywords:** Menopause Rating Scale (MRS), Middle aged women, Amritsar.

## INTRODUCTION

Menopause is understood to be as universal reproductive phenomenon. Modern medicine had contributed significantly in prolonging human lifespan. [1] All the women who live beyond the age of 45-50 years, experience a period of transition from reproductive to non-reproductive stage of life as a normal physiological change. [2,3]

Menopause may happen as natural menopause or induced menopause. [4]

Natural menopause is defined as absence of regular menstruation, after 12 months of amenorrhea without any pathological and physiological cause due to reduction of estrogen and progesterone hormones in the body. [5] While induced menopause is resulted due to surgical removal of the female reproductive organ. [6] The word climacteric is used to refer to wide variety of physiological changes occurring in the years immediately after menopause. [1] The year before menopause that includes from

the normal ovulatory cycles to cessation of periods is known as pre-menopausal transition. [7]

Due to ageing of the ovaries, and decline in the production of ovarian gonadotrophins, estrogen and progesterone hormones, the uterus and vagina becomes atrophic and various menopausal symptoms occur in the women body. [8,9] These symptoms includes irregular or skipped periods, insomnia, mood swings, fatigue, depression, dryness in mouth, hot flashes, irritability, vaginal dryness, loss of muscle strength and muscle pain, lack of sexual drive and bladder control problems. [1,8,10,11]

In addition, the onset of menopause increases the risk of the many diseases such as osteoporosis, ischemic heart disease and renal disease. As the women proceeds from pre-to peri- and post-menopausal stage, some of women find the transition barely noticeable symptoms while other find it life treating. [12]

The quality of life of the increasing aging women population is now becoming an important issue. However, there are very little data on the severity of menopausal problems to deal effectively with them. Hence, the present study was undertaken with an attempt to evaluate the severity of menopausal symptoms and problems in pre- of 35-45 years and post-menopausal women of age and 45-55 years.

## MATERIALS AND METHODS

In the present observational cross-sectional study, a total of 802 middle aged women were selected purposively as samples from Civil Hospital, Amritsar and Guru Nanak Dev Hospital, Amritsar, Punjab, India. On the basis of their menstruation regularities, these women were divided into two categories viz., pre-menopausal women (n=403) and post-menopausal women (n=399). The Menopause Rating score (MRS) questionnaire was used to measure the health related quality of life in both pre- and post-menopausal women. The questionnaire

was completed during face-to-face interviews.

## Menopause Rating Scale (MRS)

A. The Menopause rating score (MRS) is composed of 11 items and is divided into three subscales:

B. Somatic complaints: Hot flushes, heart discomfort/palpitation, sleeping problems and muscle and joint problems.

C. Psychological complaints: depressive mood, irritability, anxiety and physical and mental exhaustion.

Urogenital complaints: sexual problems, bladder problems and dryness of the vagina. Each of the 11 symptoms contain a scoring scale from "0" (no complaints) to "4" (very severe symptoms).

Each item can be graded from 0-4, (0= not present), (1= mild), (moderate=2), (severe=3), (very severe=4). [13] For the present study the MRS English version was translated into local Hindi and Punjabi language in order to facilitate analysis and interpretation of the result. Maximum total score was 44.

## Statistical Analysis

Data were analyzed using SPSS (Statistical Package for Social Science) version 20.0. Chi-square test was used to find the relationship between two sets of population viz., pre-menopausal and post-menopausal women. A 5% level of probability was used to indicate statistical significance.

## RESULTS

The comparison of Menopausal Rating Score (MRS) between pre- and post-menopausal women was shown in Table 1. The percentage (%) of Menopause Rating scores showed that pre-menopausal women had mild (27.79%), moderate (69.47%), severe (2.48%) and very severe symptoms (0.02%). However, in case of post-menopausal women, the percentage of Menopause Rating scores had mid (12.53%), moderate (32.83%), severe

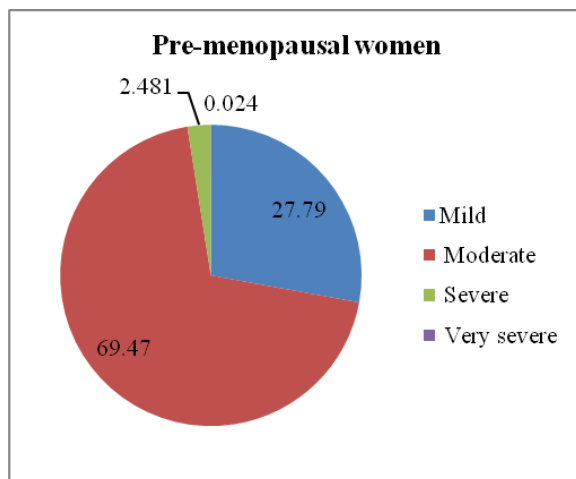
(50.12%) and very severe symptoms (4.51%). Statistically significant association (Chi-square = 47.234;  $p < 0.001$ ) was found

between menopause rating score and middle aged women of Amritsar.

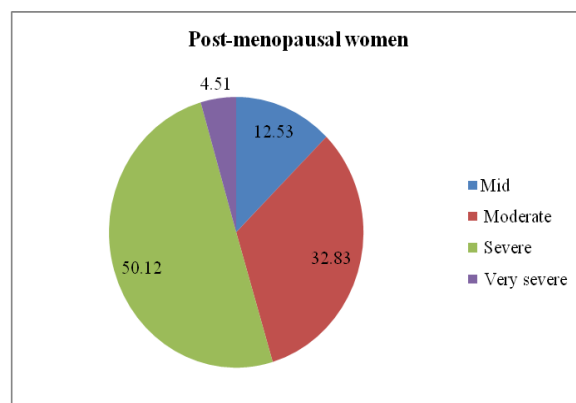
**Table1. The distribution of severity of the symptoms in pre- and post-menopausal women**

Categories	Abs. No and mild symptoms % age	Abs. No and moderate symptoms % age	Abs. No and severe symptoms % age	Abs. No and very severe symptoms % age
Pre-Menopausal Women	Abs. No=112 (27.79%)	Abs. No= 280 (69.47%)	Abs. No=10 (2.48%)	Abs. No=01 (0.02%)
Post-Menopausal Women	Abs. No=50 (12.53%)	Abs. No=131 (32.83%)	Abs. No=200 (50.12%)	Abs. No=18 (4.51%)

Chi-square (with DF 3) = 47.234;  $p < 0.001$



**Figure 1. The distribution of severity of the symptoms pre-menopausal women**



**Figure 2. The distribution of severity of the symptoms in post-menopausal women**

## DISCUSSION

Menopause is one such reality of life and is characterized by an estrogen deficient state. As many organs of the body are sensitive to estrogen, a decrease in estrogen level gives rise to a number of physical, psychological and sexual changes. [11,14-17] The frequency of symptoms varies over time. Some happen frequently in the peri-menopause and

decrease over time, while others increase progressively from peri-menopause to post-menopause and become more severe towards the end of life.

The results of our study showed that post-menopausal women showed higher in severe symptoms (50.12%) as compared to their pre-menopausal counterparts (2.48%). Similar sort of results were depicted in number of studies. [18] They also observed that statistically significantly higher values of menopause rating score were observed in peri- and post-menopausal women. Ageing, lower levels of estrogen production in menopausal age may cause vaginal mucosa atrophy, accompanied by vaginitis, pruritus, dyspareunia, and stenosis. The loss of estrogen in the ovaries results in loss of collagen, adipose tissue, and the ability to retain water that will affect overall health of women. The differences in norms and traditions, culture, sources of food and others styles of life play an important role in the prevalence of menopause symptom. [19] A positive correlation exists between menopausal symptoms and quality of life in post-menopausal women and most of the post-menopausal women complained about joint and muscle discomfort (82.8%) in their study. [20] They found that the prevalence of post-menopausal symptoms were high among women from rural area. Similar kinds of findings were also observed in other studies comfort was most experienced in post-menopausal women. [14,21]

## CONCLUSION

It can be concluded from the present study that post-menopausal women showed higher percentage of severity of symptoms as compared to their pre-menopausal counterparts. Ageing, reduced level of estrogen, illiteracy, low economic status, differences in norms and traditions, culture, sources of food and others styles are major factors affecting the Menopause Rating Score (MRS) in pre- and post-menopausal women.

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