ScientificScholar®
Knowledge is power
Publisher of Scientific Journals

https://jhas-nu.in/

Journal of Health and Allied Sciences NU

Article in Press

Original Article

Prevalence of Climacteric Symptoms in Perimenopausal Women and Its Effect on Quality of Life: An Observational Study

Vrinda Desai[1], Ashwini Bulbuli[1*]

[1]Department of Obstetrics and Gynecology Physiotherapy, Karnataka Lingayat Education Institute of Physiotherapy, India

ABSTRACT

Objectives: Perimenopausal age is the transition phase wherein women not only experience hormonal changes like decrease in oestrogen and progesterone, irregular ovulation but also many physical and psychological changes like hot flushes, mood swings, anxiety, and bone absorption. The objective of this study was to know the prevalence of climacteric symptoms in perimenopausal women and its effect on quality of life.

Material and Methods: Study was conducted using menopausal rating scale to know about the symptoms and SF-36 for quality of life on 300 women between 45-55 years from community and tertiary care hospital in Belagavi Karnataka. The data collected in the questionnaire were coded and entered in a Microsoft Excel sheet. Values were expressed in the form of percentages.

Results: The mean age of the women was 47.33+-2.36. 40.8% women were asymptomatic,58.8 % had mild to moderate symptoms and 0.33 % had severe symptoms, most common being hot flushes 261 (87%), followed by physical and mental exhaustion 205 (68.3%) and anxiety 168(56%) least common was heart discomfort 65(21.6%). Out of 300 women, only 60 women (20%) had the quality of life affected, and the rest, 80%, did not affect the quality of life.

Conclusion: It was seen that the climacteric symptoms were prevalent in 60.32% of the perimenopausal women, which was lower than the study done on the rural population of perimenopausal women. This might be seen due to the fact that the rural population mostly has a misconception of the symptoms. Only 20% of women had the quality of life affected at mild levels, and the rest 80% had no affection. This may be seen due to increasing awareness among women to indulge in physical activities rather than living a sedentary lifestyle.

Keywords: Climacteric symptoms, Hormonal changes, Perimenopausal women, Prevalence, Quality of life

INTRODUCTION

Menopause is defined as having occurred after 12 consecutive months of amenorrhea without any pathological or physiological cause.[1] Reduced ovarian hormone secretion is its root cause.[2] Menopause signifies the end of the reproductive phase. Although it is a normal physiological transition, the symptoms can occasionally be so severe that they interfere with day-to-day activities.[3] According to the stages of reproductive aging workshop (STRAW) classification, menopause is central to staging and denotes the point zero. Menopausal transition is -2 to 1, and postmenopausal is 1-2. The stages of menopause include a) pre-menopause, b) peri menopause, and c) post-menopause. A specific sign demarcates the onset of each stage. In early menopausal transition, the length of the cycle varies significantly. At the late transition, amenorrhoea is seen for 60 days or more. The vasomotor symptoms are commonly seen in early post-menopausal symptoms followed by vaginal dryness and urogenital atrophy.[4]

Perimenopause is the time before the onset of menopause, when the endocrinological, biological, and clinical features of menopause start. It extends to 1 year after menopause. According to the American College of Obstetricians and Gynecologists (ACOG) guidelines, the typical age range for perimenopause is 45-55 years.[5] The literature on the prevalence of climacteric symptoms in Indian perimenopausal women is limited, as the majority of studies focus on the severity of symptoms in postmenopausal women. In India, women typically experience menopause on an average at 45±5.6 years, with perimenopausal age being 44.7 ± 3.8 years.[6] The age of onset may be affected by habits like smoking or alcohol consumption. Cigarette smoking may cause the early

***Corresponding author:** Dr. Ashwini Bulbuli, Department of Obstetrics and Gynecology Physiotherapy, Karnataka Lingayat Education Institute of Physiotherapy, India. ashwinichougala05@gmail.com

Received: January 21, 2025 **Accepted:** March 19, 2025 **EPub Ahead of Print:** May 16, 2025 **Published:** *** **DOI:** 10.25259/JHS-2024-9-13-(1555)

onset of symptoms, but alcohol consumption leads to delayed onset.[7] Studies assessing all the domains of perimenopause, also known as the transition phase, are scarce. Most women have a misconception regarding the symptoms, as unlike during pregnancy, there is no consideration given to females experiencing menopausal symptoms. A lack of empathy and understanding might have negative effects on mental health and general well-being.[8] As women associate menopause with ageing, the symptoms seen in the transition phase are often neglected. Moreover, Indian women are quite hesitant to openly discuss menopause, leaving them to cope with perimenopausal symptoms on their own. Hence, the need for the study was to know the severity of climacteric symptoms in perimenopausal women to eliminate the misconceptions and myths and prepare them better for menopause.

MATERIAL AND METHODS

Primary data was collected from a tertiary care hospital and community centres in Belagavi city, Karnataka, India. The present study was a cross-sectional study approved by the Institutional Ethical Committee (ethical clearance no. 635). The sample size calculation was based on expected prevalence from the former studies using the formula: $n=Z^2 p(q)/d^2$.

The derived sample size was 300c, for which non-probability sampling was used with a sample of convenience. The study screened 415 women over a 6-month period, of whom 300 met the inclusion criteria: aged 40-55 years and willing to participate voluntarily. The exclusion criteria were pregnant and lactating women, women under HRT, women with diabetes mellitus and uncontrolled hypertension, women who underwent hysterectomy, had a prevailing infection, or those who already attained menopause. Informed consent was obtained from all participants prior to their enrolment in the study, and the procedure was explained to them. Demographic data were recorded, and participants were administered the menopausal rating scale, along with the SF-36 quality of life questionnaire. The MRS is a self-administered questionnaire comprising 11 questions, divided into three subscales: somatic, psychological, and urogenital. Each of the 11 symptoms contains a scoring scale from 0 (no complaints) to 4 (severe complaints). The total score is 44, wherein a higher score denotes greater severity.[9] The SF-36 indicates overall health status.[10] It has eight scaled scores, and the scores are summed, resulting in a range of 0-100. Lower scores indicate more disability and vice versa. The statistical analysis was done using SPSS software version 26.

RESULTS

All 300 women completed the study. The mean age of the women was 47.33± 2.36. Among these, 92 were 40-45 years old, 200 were 45-50 years old, and eight were 51-55 years old. The majority of women (286) were married, 4 women were single, and 9 women were widows. Most of the women were educated, with only 11.6% being uneducated. In terms of weight, 25% of the women were underweight, whereas 10% of women were obese. Table 1 shows that, of the 300 women, 40.8% were asymptomatic, 58.8% had mild to moderate symptoms, and 0.33% had severe symptoms. The most prevalent symptom in this study was hot flushes 261 (87%) followed by physical and mental exhaustion 205 (68.3%), anxiety 168(56%), joint & muscular pain 160(53.3%), irritability 138(46%), sleep problems (40.3%), depressive mood 90(30%), bladder problems 80(26.6%), sexual problems 78(26%), and dryness of vagina 73(24.6%), with the least common being heart discomfort 65(21.6%) [Figure 1].

It was observed that the quality of life of only 60 women out of all the enrolled women was affected.

DISCUSSION

In the present study, 40.8% of the 300 women were asymptomatic, 58.8% had mild to moderate symptoms, and 0.33% had severe symptoms. Most of the women experienced menopause at the age of 48-50 years, with a calculated mean of 48.33±2.36 years, which is in line with other studies from Asia, although lower than those conducted on Western populations. Along with the severity of the symptoms, the quality of life of these women was assessed. The menopausal rating scale was used to assess symptoms, and the SF-36 was used to assess quality of life. In the present study, the median MRS score was found to be low, as most participants reported mild or moderate symptoms rather than severe ones.

The current study reported hot flushes (87%) as the most common symptom, which was consistent with the findings of the studies done on Malaysian, Australian, and Caucasian women, which can be explained due to the fact that oestrogen fluctuations are seen in the perimenopausal phase.[4]

However, our findings showed that the various somatic or psychological symptoms experienced by women were not merely due to menopause alone but also due to other physical,

Table 1: Severity of symptoms based on the menopause rating scale

S. No.	Range	Description	No. of responses	%
1	0-11	Asymptomatic	122	40.80
2	11 to 35	Mild to moderate	176	58.86
3	36 & More	Severe	1	0.33

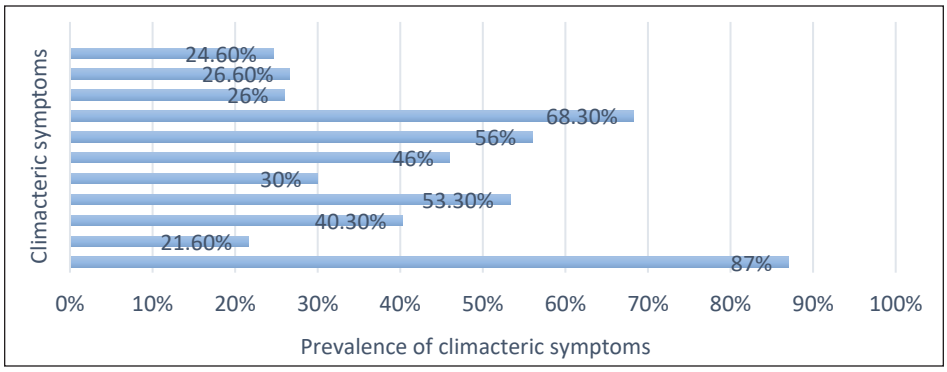

Figure 1: Prevalence of climacteric symptoms based on MRS scale. MRS: Menopause rating scale.

psychological, or health-related problems caused due to ageing, which can mimic menopausal symptoms.[1] In this study, heart discomfort was experienced the least because the majority of women engaged in some form of physical activity and had a habit of walking for at least 30 minutes daily.[3]

In this study quality of life was also assessed, and it was seen that women had mild affection, and no significant correlation was seen between environmental factors and quality of life, this differed from a study done on QOL in postmenopausal women, as that study found a significant correlation between environmental factors and quality of life.[1,2]

According to a review, it was observed that obesity did not lead to an increase in the severity of symptoms and was not a reliable indicator of obesity. Similarly, in this study, it was also observed that changes in body mass index (BMI) were due to both bodily changes and hormonal fluctuations commonly seen in the climacteric phase. Weight gain or obesity didn't increase the severity of symptoms.

Studies that included both rural and urban women revealed that rural women were less aware of the transition phase, as it was not often discussed, leading to a misinterpretation of the symptoms. Women in the urban area were hesitant to discuss sexual problems openly and needed psychological counselling for the same. In contrast, the present study found that women were less hesitant to discuss sexual problems, as there is an increased awareness regarding the same on different social platforms and health camps.[2,3,9]

Regarding the quality of life, no significant correlation was found between quality of life and menopausal symptoms; rather, it was seen that the majority were working women with work-related stress along with bodily changes seen due to the transition phase, which affected daily life mildly.[11]

The current study provides significant information on the prevalence of climacteric symptoms in perimenopausal women in Belagavi. One of the strengths of this study was that it used well-validated and reliable questionnaires to assess the prevalence of symptoms and their effect on quality of life. This enhances the reliability of the findings and facilitates comparison with other studies that employ similar criteria. As the sample was taken from a specific geographical area, it may not be representative of the entire Indian population.

Despite these limitations, the study highlights the need for more specific health interventions that can be provided to women during the transition phase to support them in the post-menopausal phase and enhance their overall well-being.

CONCLUSION

According to the findings of the present study, the prevalence of climacteric symptoms is 60.8%, with quality of life affected in only 20% of women. It was seen that the climacteric symptoms experienced were also at mild to moderate levels, and very few had complained of severe symptoms. However, specific interventions are essential to improve overall well-being in perimenopausal women.

Ethical approval: The research/study approved by the Institutional Ethical Committee at Kaher institute of Physiotherapy, number KIPT/635/01.12.2023, dated 1st December 2023.
Declaration of patient consent: Patient's consent not required as patients identity is not disclosed or compromised.
Financial support and sponsorship: Nil.
Conflicts of interest: There are no conflicts of interest.
Use of artificial intelligence (AI)-assisted technology for manuscript preparation: The authors confirm that there was no use of artificial intelligence (AI)-assisted technology for assisting in the writing or editing of the manuscript and no images were manipulated using AI.

REFERENCES

1. Kalhan M, Singhania K, Choudhary P, Verma S, Kaushal P, Singh T. Prevalence of menopausal symptoms and its effect on quality of life among rural middle-aged women (40-60 years) of Haryana, India. Int J Appl Basic Med Res 2020;10:183-8.
2. Khatoon F, Sinha P, Shahid S, Gupta U. Assessment of menopausal symptoms using modified menopause rating scale

(MRS) in women of Northern India. Int J Reprod Contracept Obstet Gynecol 2018;7:947.
3. Nagaraj D, Ramesh N, Devraj D, Umman M, John AK, Johnson AR. Experience and perceptions regarding menopause among rural women: A cross-sectional hospital-based study in south Karnataka. J Midlife Health 2021;12:199-205.
4. Rahman SA, Zainudin SR, Mun VL. Assessment of menopausal symptoms using modified menopause rating scale (MRS) among middle age women in Kuching, Sarawak, Malaysia. Asia Pac. Fam. Med. 2010;9:5.
5. Practice bulletin no 141: Management of menopausal symptoms: Correction. Obstet. Gynecol. 2018;131:604.
6. Ahuja M. Age of menopause and determinants of menopause age: A PAN India survey by IMS. J Midlife Health 2016;7: 126-31.
7. Delbaere K, Close JC, Brodaty H, Sachdev P, Lord SR. Determinants of disparities between perceived and physiological risk of falling among elderly people: cohort study. BMJ 2010;341:c4165.
8. Chuni N, Sreeramareddy CT. Frequency of symptoms, determinants of severe symptoms, validity of and cut-off score for menopause rating scale (MRS) as a screening tool: A cross-sectional survey among midlife Nepalese women. BMC Womens. Health 2011;11:30.
9. A S, Upendra S, Chavan R, Barde S. Assessment of menopausal symptoms using modified menopause rating scale (MRS) among middle age women in selected urban and rural area of Pune district. J Adv Sci Res 2015;6:47-50
10. Elsayed Mohammed Elsabagh E, Shokry Abd Allah E. Menopausal symptoms and the quality of life among pre/post-menopausal women from rural area in Zagazig city. Life Sci J. 2012;9:283-291.
11. Sushmitha V, Shettian N. A study on the modified menopause rating scale as a tool in the assessment of prevalence of menopausal symptoms in women of Dakshina Kannada district: a cross sectional study. Int J Reprod Contracept Obstet Gynecol 2020;10:138.

How to cite this article: Desai V, Bulbuli A. Prevalence of Climacteric Symptoms in Perimenopausal Women and Its Effects on Quality of Life: An Observational Study. J Health Allied Sci NU. doi: 10.25259/JHS-2024-9-13-(1555)