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## Assessment of Menopausal Symptoms among Middle Aged Women: A Community Based Cross-Sectional Study

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### ABSTRACT

Menopausal symptoms experienced by women are known to affect their quality-of-life. The symptoms experienced at menopause are quite variable and their etiology is found to be multifactorial. The objective is to determine the commonly reported menopausal symptoms among middle age women and to assess the pattern and severity of menopausal symptoms. Women in the age group of 40-65 years were included in the study by convenient sampling method. Out of 1000 respondents, the majority of the study subjects belonged to the 45-50 years of age group- 400 (40%). Majority of women in the study were married- 630 (63%), women who were educated up to high school were 340 (34%), 520 (52%) of women were homemakers. In the present study, it was observed that the study subjects who attained menopause were at the age of 45-50 years and it was observed in 480 respondents (48%). The most common symptoms reported were joint and muscular discomfort 960 (96%) and Physical and mental exhaustion 951(95%). However, Postmenopausal women had somatic 671 (95.7%), psychological 601 (85.7%) and urogenital 651 (92.8%) symptoms than perimenopausal and premenopausal women. The most prevalent menopausal symptoms in the present study were joint and muscular discomfort 960 (96%), followed by physical and mental exhaustion 951 (95%). Menopausal symptoms are common and cannot be ignored. It is therefore suggested that menopausal clinics needs to be established with in the current primary health care system. In order to focus attention to menopausal women and their needs.

**Keywords:** Menopause, post-menopause, somatic, pre-menopause

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## INTRODUCTION

Menopause is an unspoken, unattended, reality of life, but the cause of which is still undeciphered by everyone. It is a significant physiological change in women's lives. According to World Health Organization, post-menopausal women are those women who have stopped menstrual bleeding one year ago or stopped having periods as a result of medical or surgical intervention (Hysterectomy/Oophorectomy).

With increase in life expectancy, women have to spend 1/3rd of their life in this phase <sup>1</sup>. It happens typically between the ages of 45 and 52 years yet may change from individual. The normal period of menopause in western nations has ascended by 5 years in the last century, a change which most likely reflects a general improvement in wellbeing and force of the community and an assurance of women to stay youthful <sup>2</sup>.

Menopausal side effects result from exhaustion of estrogen level as women draws near menopausal stage and a portion of these women start to encounters these menopausal symptoms early in the perimenopausal stage. The absence of estrogen over 80% of women experience decline in physical and mental health as they approach menopause and consequently postmenopausal women can be viewed as a risk population <sup>3</sup>. Women during the menopause period experience certain physical and mental changes and face different issues, for like urogenital, mental social, cardiovascular and neurological issues. These issues not only cause misery and inability for the individual yet additionally impose a lot of stress on the medical care system <sup>4</sup>.

By loss of reproductive potential and progress into later life women may turn into a victim of both physical and mental issues. Physical issues associated with menopause are hot flushes, night sweats or chills, disturbed sleep, vaginal dryness, loss of motion, loss of energy, state of mind swings, expanded touchiness, loss of skin tone, and urinary spillage. Whereas psychological complaints include loss of confidence, depressed mood, irritability, forgetfulness, difficulty in concentrating, panic attacks and anxiety <sup>5</sup>. Moreover, post-menopausal women turns-out to be more prone to specific diseases like osteoporosis, CVS illnesses, malignancy and reduction in intellectual capacities. Menopause is multidimensional and it has deleterious effects on women's physiological, physical, mental and psychological wellness. Various elements that decide women's experience towards menopause such as nationality, culture, social background, menopausal status, attitude, education, diet, hereditary qualities, occupation and in general health <sup>6</sup>.

Different devices or instruments have been intended to quantify and survey side effects during the menopausal change; among them is menopause rating scale (MRS) which is intended to evaluate

menopause specific wellbeing related to quality of life (QoL) to quantify the seriousness of age/menopause-related complaints by rating a profile of symptoms <sup>5</sup>.

There are less researches conducted about health-related quality of menopausal women among North Karnataka. So, the purpose of this research was to assess menopausal symptoms and knowledge of postmenopausal woman in the rural areas of North Karnataka.

## MATERIALS AND METHOD

This community based cross-sectional study was conducted for a period of six months from August 2020 to January 2021 in Raichur. Sample size of 1000 was calculated by assuming the proportion of women with menopausal symptoms to be 50% with relative precision of 20% and nonresponse rate of 10%. Women in the age group of 40-65 years were included in the study by convenient sampling method. Exclusion criteria at baseline included any serious illness that might compromise ovarian or hormonal and current use of exogenous sex hormones. Patients with amenorrhea secondary to ovarian surgery, hysterectomy or chemo radiotherapy were also excluded. Each patient was explained the nature and purpose of this study and their written informed consent was obtained. Data regarding menopausal symptom was also obtained by interviewing each participant using the standard menopause rating scale (MRS) questionnaire. MRS is a 11 items questionnaire on commonly associated symptoms of menopause with a scoring scale from zero (no complaints) to four (very severe symptoms). Each participant was asked if they had experienced these symptoms in the previous 1-month period and to grade its severity.

Somatic domain comprises symptoms such as hot flushes and sweating, heart discomfort, sleep problems and joint and muscular discomfort. Psychological domain comprises symptoms such as depressive mood, irritability, anxiety and physical and mental exhaustion. Urogenital domain comprised of symptoms like sexual problems, bladder problems and dryness of vagina. The menopausal status was classified according to Stages of Reproductive Ageing Workshop classification, which divided menopause staging into, postmenopausal as no menstrual bleeding in the previous 12 months, perimenopausal as those who did not have menstruation in the previous 2 months or those who experienced increasing irregularity of menses and premenopausal as minor changes in cycle length.

## RESULTS AND DISCUSSION

**Table 1: Sociodemographic characteristic of participants (n=1000)**

Characteristics	Number	Percentage
<b>Age group</b>		
40-45	40	4%
45-50	400	40%

50-55	280	28%
55-60	160	16%
60-65	120	12%
<b>Marital status</b>		
Married	630	63%
Widowed	282	28.2%
Divorcee	41	4.1%
Unmarried	48	4.8%
<b>Educational level</b>		
Illiterate	30	3%
Primary	183	18.3%
Middle	136	13.6%
High school	342	34.2%
PUC	103	10.3%
Graduation	124	12.4%
Post-graduation	82	8.2%
<b>Occupation</b>		
Housewives	598	59.8%
Unskilled	15	1.5%
Skilled	85	8.5%
Semiskilled	129	12.9%
Professional	173	17.3%
<b>Age at menopause</b>		
35-40	0	0%
40-45	100	10%
45-50	481	48.1%
50-55	389	38.9%
55-60	30	3%

**Table 2: Distribution of menopausal symptoms among participants. (n=100)**

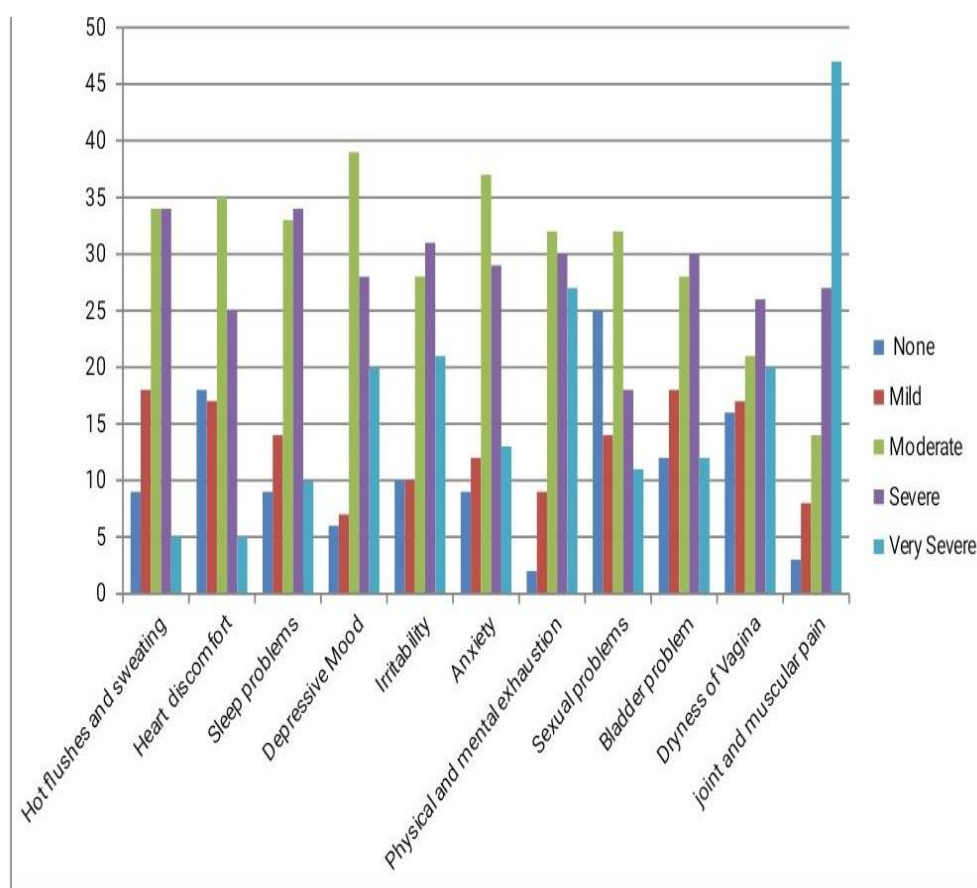
Symptoms	Frequency	Percentage
Hot flushes and sweating	911	91.1%
Heart discomfort	822	82.2%
Sleep problems	910	91%
Depressive mood	910	91%
Irritability	920	92%
Anxiety	911	91.1%
Physical and mental exhaustion	952	95.2%
Sexual problems	750	75%
Bladder problems	880	88%
Vaginal dryness	840	84%
Joint and muscular discomfort	961	96.1%

**Table 3: Distribution of menopausal symptoms based on status of menopause**

Status of menopause	Number	Percentage
<b>Premenopausal women (n=102)</b>		
Somatic symptoms	80	80%
Psychological symptoms	90	90%
Urogenital symptoms	70	70%
<b>Peri menopausal women (n=181)</b>		

Somatic symptoms	180	93%
Psychological symptoms	180	93%
Urogenital symptoms	172	85%
<b>Postmenopausal women (n= 717)</b>		
Somatic symptoms	670	92.8%
Psychological symptoms	600	85.7%
Urogenital symptoms	651	95.7%

Menopause poses a major challenge to the healthy aging of a woman. The transition from fruitful stage to menopause causes much changes physically and psychologically in women's life. Decreased estrogen levels have deleterious effects on various systems in the body like cardiovascular system, musculoskeletal and urogenital symptoms. Majority of women suffer from one or the other symptoms.



**Figure 1: Distribution of menopausal symptoms among the respondents**

The collected data for the present study was analyzed and the results based on the socio-demographic characteristics, distribution of menopausal symptoms, severity and status of the condition were discussed below. Among the total participants, age was taken into consideration by dividing into 4 age groups being kept at an interval of 5 years each. Majority of the participants were found in the age group of 45-50(48%) followed by 50-55(28%) and least was found in the age group of 40-45(4%). Among our respondents, no one has attained menopause at the age below

40 years. The age group characteristics were similar to the study conducted by Joseph N et al <sup>3</sup> and Pathak N et al <sup>2</sup>. The data suggest that the proportion of women who entered menopause prematurely was found to be quite high in current study.

Majority of participants were married (63%) and some participants were having high school education (34.2%) followed by graduation (12.4%) as education qualifications. Most of the participants in the study were housewives (59.8%). The socio-demographic characteristics are slightly different from other studies due to differences in geographical areas of the study, their social factors, customs and religion.

The most common symptoms of menopause seen in this study were joint and muscle discomfort. Several studies have reported joint and muscle pain as the commonest menopausal symptoms <sup>3,6,5</sup>. Overall musculoskeletal symptoms being reported as the commonest menopausal symptoms has been proved to be related to hormonal changes. Estrogen deficiency can accelerate adverse impacts on musculoskeletal functions and can lead to osteoarthritis, osteoporosis and sarcopenia as long-term complications.

Nearly three fourth of the study participants were post-menopause (71.7%) followed by perimenopausal (18.1%) and premenopausal (10.2%). From our study, postmenopausal women were noted to experience more somatic symptoms like nausea, dizziness, joint pains and tiredness when compared to other menopausal group of women. These findings were supported by the study conducted by Punia A et al <sup>7</sup> and Joseph N et al <sup>3</sup>.

The most prevalent symptoms reported were joint and muscular discomfort (96.1%). This was in concordance with the study conducted by Akhtar N et al <sup>6</sup>, Rahman SA <sup>8</sup>. Second most prevalent symptoms were physical and mental exhaustion (95.2%). Other symptoms found were depressive mood (91%), dryness of vagina (84%), irritability (92%), Hot flushes and sweating (91%). Sleep problems (91%), Anxiety (91.1%), Sexual problems (75%), Bladder problem (84%), Heart discomfort (82.2%). In a study done by Joseph N et al <sup>3</sup>, occurrence of joint and muscular discomfort and physical and mental exhaustion were found to be the most common symptoms among the respondents.

Menopausal symptoms were recorded differently by different studies. In our study, somatic psychological and urogenital symptoms were significantly higher in postmenopausal women. Patil SD <sup>9</sup> and Pal A et al <sup>10</sup> also got similar results. While in a study conducted by Anil k et al <sup>5</sup>, psychological problems were more in premenopausal and perimenopausal women. Diversity in ecology, economic status, social status, cultural norms, availability and accessibility of health care

and education are responsible for varied presentation of menopausal status and menopausal symptoms.

## CONCLUSION

The common menopausal symptoms were joint and muscular discomfort and physical and mental exhaustion. Most women suffered from somatic symptoms followed by psychological and urogenital symptoms. However, somatic symptoms were more among postmenopausal women. Also, according to menopause rating scale, the postmenopausal women of our study population experienced. More than half of responders had at least one severe complaint. The high proportion and severity of the menopausal symptoms observed in this study group proves that menopausal symptoms are common and cannot be ignored. It is therefore suggested that menopausal clinics needs to be established with in the current primary health care system in order to give attention to menopausal women and their needs. Such clinics should aim early identification of common menopausal symptoms and its prompt management.

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## ETHICAL CONSIDERATION

The ethical approval to conduct the study was obtained from the Ethical Review Committee. Written consents were obtained from each participant.

## REFERENCES

1. Sultan S, Sharma A, Jain NK. Knowledge, attitude and practices about menopause and menopausal symptoms among midlife school teachers. *Int J Reprod Contracept Obstet Gynecol* 2017;6:5225-9.
2. Pathak V, Ahirwar N, Ghate S. Study to assess knowledge, attitude and practice regarding menopause among menopausal women attending outdoor in tertiary care centre. *Int J Reprod Contracept Obstet Gynecol* 2017;6:1848-53.
3. Joseph N, Nagaraj K, Saralaya V, Nelliyanil M, Jagadish Rao PP. Assessment of menopausal symptoms among women attending various outreach clinics in South Canara District of India. *J Mid-life Health* 2014;5:84-90.
4. Noroozi E, Dolatabadi NK, Eslami AA, Hassanzadeh A, Davari S. Knowledge and attitude toward menopause phenomenon among women aged 40-45 years. *J Edu Health Promot* 2013;2:25.



5. Agarwal AK, Kiron N, Gupta R, Sengar A, Gupta P. A study of assessment menopausal symptoms and coping strategies among middle age women of North Central India. *Int J Community Med Public Health* 2018;5:4470-7.
6. Akhtar N, Gupta RK, Bala K, Mengi V, Gupta C. Menopausal symptoms in rural, middle-aged women: a community based cross sectional study. *Int J Reprod Contracept Obstet Gynecol* 2018;7:3678-83.
7. Punia A, Lekha S, Punia MS. Assessment of menopausal problems among rural women using modified menopause rating scale. *Int J Med Sci Public Health* 2017;6(5):873-878.
8. Rahman SASA, Zainudin SR, Mun VLK. Assessment of menopausal symptoms using modified Menopause Rating Scale (MRS) among middle age women in Kuching, Sarawak, Malaysia. *Asia Pac Fam Med*. 2010;9(1):5.
9. Patil SD, Deshmukh JS. Prevalence and pattern of menopausal symptoms among menopausal women in central India: a community based cross sectional study. *Galore International Journal of Health Sciences& Research*. 2019;4(3):60-65.
10. Pal A, Hande D, Khatri Subhash. Assessment of menopausal symptoms in perimenopause and post-menopause women above 40 years in rural area. *Int J Healthc Biomed Res*. 2013;1(3):166–74.

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