

Prevalence and Pattern of Menopausal Symptoms among Menopausal Women in Central India: A Community Based Cross Sectional Study

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ABSTRACT

Background: During menopausal transition there is a lot of fluctuation in the hormone levels and thus women experience many symptoms and conditions. Aim and objective: To study sociodemographic factors, prevalence and pattern of menopausal symptoms from rural community in central India.

Methodology: Community based cross-sectional study was conducted in rural community in central India among 288 women belonged to 40-65 years of age. Details regarding socio-demographic data, menopausal status by STRAW (Stages of reproductive aging and workshop classification) staging, menopausal symptoms by modified MRS (Menopausal Rating Scale) questionnaire were taken.

Results: Mean age of women was 49.9±7.69 years. Majority of women were Hindus 184(63.89%) and maximum were married 212(73.62%). 77(26.74%) educated up to primary followed by illiterate 67(23.26%). Most of the women 193(67.01%) were homemaker. 131(45.49%) women belonged to socioeconomic status (IV). More than half of study participants 158(54.86%) belonged to nuclear family. Majority of the women were postmenopausal 150(52.08%) followed by premenopausal 81(28.13%) and perimenopausal 57(19.79%) respectively. The most prevalent symptoms reported were joint and muscular discomfort 224(77.77%), physical and mental exhaustion 157(54.51%), heart discomfort 94(32.63%) and sleep problems 93(32.29%). As women passes from premenopause to perimenopause to postmenopause, menopausal symptoms were increased.(p value <0.0001).

Conclusion: The commonest menopausal symptom was joint and muscular discomfort. Postmenopausal women having significantly

more symptoms than pre and Perimenopausal women.

Key Words- Prevalence, Pattern, Menopausal symptoms, Menopausal status etc.

INTRODUCTION

Menopause is said to near universal natural reproductive phenomenon. Women spend almost a one third of their life in menopause. [1-3] The World Health Organization (WHO) defines menopause as 'the permanent cessation of menstruation as a result of the loss of ovarian activity'. [4-5] WHO scientific group defined three stages premenopause, perimenopause, postmenopause. 2001 STRAW has proposed nomenclature and a staging system for ovarian aging which is widely considered the gold standard for characterizing reproductive aging through menopause. [6-7] During menopausal transition there is a lot of fluctuation in the hormone levels and thus women may experience many symptoms and conditions. [8] Symptoms of menopause are multiple and their frequency differs from one study to the other. [9] Some of menopausal symptoms experienced by these women can be severe enough to affect their normal daily activities. Unfortunately majority of these women are not aware of the changes brought about by menopause. These symptoms are due to depletion of estrogen level as women approaches menopausal stage and some of these women begin to experience these menopausal symptoms early in the perimenopausal phase. [10] The common climacteric symptoms experienced

by them can be group into: vasomotor, physical, psychological or sexual complaints. [8,10-11] References from all over the world show that an event of menopause is highly variable in timing and pattern. Various tools or instruments have been designed to measure and assess symptoms during the menopausal transition; among them is Menopause Rating Scale (MRS). [10] Thus this study aims to study prevalence and pattern of menopausal symptoms from rural community in central India.

MATERIALS AND METHODS

A community based cross sectional study was carried out from July 2016 to June 2017 among 288 women between age group of 40-65 years in rural community in central India. Those women who were receiving Hormone Replacement Therapy (HRT) were excluded. Sample size of 288 was calculated by taking prevalence of most common menopausal symptom i.e. Joint and muscular discomfort from pilot study on 100 study subjects as 75%. Assuming 95% confidence interval (CI) and 0.05 level of significance as similar data from rural community regarding menopausal symptoms was not available. There were 26 villages and 6 sub-centres under one Primary Health Centre in study area. One village was selected from 26 villages by simple random sampling. The protocol was approved by the Ethical committee of the institution. A predesigned, pretested questionnaire is used to collect data containing following items, 1) Socio-demographic data 2) Menopausal status of the women: The menopausal status was classified according to STRAW classification which divided menopause staging into: Premenopause:- Minor changes in cycle length particularly decreasing length / flow of the cycle. Perimenopause:- Early + Late menopausal transition. Early menopausal transition:- It is marked by increased variability in menstrual cycle length, defined as a persistent difference of 7 days or more in the length of consecutive cycles. Late menopausal transition:- It is

marked by the occurrence of amenorrhea of 60 days or longer up to 12 months. Postmenopause: - No menstrual bleeding in last 12 months. [7,12] 3) Menopausal symptoms : Assessed by using modified MRS questionnaire. This is composed of 11 items and was divided into three subscales: (a) Somatic - hot flushes, heart discomfort/palpitation, sleeping problems and joint and muscular discomfort. (b) Psychological- depressive mood, irritability, anxiety, physical and mental exhaustion(c) Urogenital - sexual problems, bladder problems and dryness of the vagina. The women were asked whether or not they had experienced the 11 menopausal symptoms in the previous one month.

Statistical Analysis

The data was collected, entered and analysed using EPI Info 7.1 and SPSS (20). The qualitative data were expressed by percentage. The quantitative data were expressed in terms of number, percentage, mean and standard deviation. Pearson Chi square test was applied to observe the differences between proportions. Pearson Chi square for linear trend was used to see trend. P value <0.05 taken as level of significance.

RESULTS

Table 1 shows that Most of the study subjects belonged to 40-44 years of age group 86(29.86%) followed by 45-49 years 63(21.88%) and least 14(4.86%) were of 65 years of age.

Maximum numbers of women were Hindus 184(63.89%) Majority of women were married 212(73.62%).

Women educated up to primary were 77(26.74%) followed by 59 (20.49%), 51(17.71%), 23(7.99%) were educated up to secondary, upper primary and senior secondary respectively. Majority of women 193(67.01%) were homemaker followed by 71(24.65%) unskilled worker. Clerical, shop owner, farmer constitutes 12 (4.17%). In the present study, maximum no of study subjects i.e. 131(45.49%) belonged to socioeconomic status IV followed by

116(40.28%) were from socioeconomic status III.

Table 1-Distribution of study subjects according to sociodemographic data

Sociodemographic Variables		Number(n=288)	Percentage
Age (in years)	40-44	86	29.86
	45-49	63	21.88
	50-54	49	17.01
	55-59	40	13.89
	60-64	36	12.50
	65	14	4.86
Religion	Hindu	184	63.89
	Bouddha	67	23.26
	Muslim	37	12.85
Marital status	Married	212	73.62
	Widowed	70	24.30
	Divorced	4	1.39
	Separated	2	0.69
Education	Illiterate	67	23.26
	Primary(I to V)	77	26.74
	Upper primary(VI to VIII)	51	17.71
	Secondary(IX to X)	59	20.49
	Senior secondary(XI to XII)	23	7.99
	Undergraduate	11	3.81
Occupation	Homemaker	193	67.01
	Unskilled	71	24.65
	Semiskilled	5	1.74
	Skilled	7	2.43
	Clerical ,shop owner, farmer	12	4.17
Socioeconomic status	I	2	0.69
	II	22	7.64
	III	116	40.28
	IV	131	45.49
	V	17	5.90
Type of family	Nuclear	158	54.86
	Three generation	87	30.21
	Joint	43	14.93

Mean age =49.9± 7.69 years, Median=48 years

Table2-Distribution of study subjects according to menopausal status

Menopausal status	Number	Percentage
Premenopausal	81	28.13
Perimenopausal	57	19.79
Postmenopausal	150	52.08
Total	288	100.00

Table 2 reveals frequency of menopausal status as assessed according to STRAW Staging. Majority of the women were postmenopausal 150 (52.08%), followed by premenopausal 81 (28.13%) and perimenopausal 57(19.79%) respectively.

Table 3- Distribution of study subjects according to menopausal symptoms

Sub scales	Menopausal symptoms	Number(n=288)	Percentage
Somatic (n=245)	Hot flushing/night sweating	82	28.47
	Heart discomfort	94	32.63
	Sleep problems	93	32.29
	Joint and muscular discomfort	224	77.77
Psychological (n=194)	Depressive mood	63	21.88
	Irritability	82	28.47
	Anxiety	56	19.44
	Physical and mental exhaustion	157	54.51
Urogenital (n=59)	Sexual problem	19	6.60
	Bladder problem	50	17.36
	Vaginal problem	29	10.07

Table 3 reflects the frequency of menopausal symptoms as assessed by modified MRS Scale. 37(12.85%) women did not have any symptom. Somatic

symptoms were reported by 245(85.07%) women followed by psychological symptoms 194(67.36%) and urogenital symptoms 59(20.49%). The most prevalent

symptoms reported were joint and muscular discomfort 224(77.77%), physical and mental exhaustion 157(54.51%), heart discomfort 94(32.63%) and sleep problems 93(32.29%) followed by symptoms of hot flushing 82(28.47%), irritability

82(28.47%), depressive mood 63(21.88), anxiety 56(19.44%).

Other problems noted were bladder problems 50(17.36%), vaginal problems 29(10.07%), sexual problems 19(6.60%).

Table 4- Association of Menopausal status and Menopausal symptoms

Meno-pausal Status	n	Menopausal symptoms					
		Somatic		Psychological		Urogenital	
		Yes no(%)	No no(%)	Yes no(%)	No no(%)	Yes no(%)	No no(%)
Premeno Pausal	81	57(70.37)	24(29.63)	42(51.85)	39(48.15)	0(0.00)	81(100.00)
Perime Pausal	57	48(84.21)	9(15.79)	40(70.18)	17(29.82)	7(12.28)	50(87.72)
Postmeno Pausal	150	140(93.33)	10(6.67)	112(74.67)	38(25.33)	52(34.67)	98(65.33)
P Pearson Chi-Square Value for linear trend		20.73		11.20		39.82	
Df		1		1		1	
pvalue		<0.0001*		<0.0001*		<0.0001*	

*Highly significant

As evident from table 4 that, postmenopausal women had somatic 140(93.33%), psychological 112(74.67%) and urogenital 52(34.67%) symptoms than perimenopausal and premenopausal women. None of the premenopausal women had urogenital symptoms. Somatic, psychological and urogenital symptoms were significantly higher in postmenopausal women. As women passes from premenopause to perimenopause to postmenopause somatic, pshychological and urogenital symptoms were increased. Chi square for linear trend was highly significant. (p value=<0.0001).

DISCUSSION

The symptoms of menopause are enormous, mostly universal with varied degrees of severity. Women in the menopause stage therefore need more information about their physical and psychosocial needs during this transition period .Providing sufficient information on menopause will help to empower women which can contribute to improving the perception about this stage and the importance of self-care.

In our study Mean age of study subjects was 49.9 ± 7.69 with median age 48 years. Almost similar findings were reported by Rahman SA et al, [10] while Joseph N et al [2] and Punia A et al [13] found mean age which was slightly higher than

our study. In present study, maximum number of women were Hindus 184(63.89%) followed by Bouddha 67(23.26%) and Muslims 37(12.85%). These findings were consistent with census 2011. In the present study majority of women were married 212(73.62%). While in study conducted by Satpathy M [8] 97% were married. In our study 77(26.74%) women were educated up to primary In contrast to study conducted by Seeta DA et al [14] and Bansal P et al [11] majority were illiterate 42.5%, 42.2% respectively.

Majority of women 193(67.01%) were homemaker .Similar results were seen in studies by Joseph N et al [2] and Vijayalakshmi S et al. [15] Bansal P et al. [11] Most no. of study subjects i.e. 131(45.49%) belonged to socioeconomic status IV followed by 116(40.28%) were from socioeconomic status III . Dienne PO et al [9] also reported findings similar to our study. More than half of study participants 158(54.86%) were belonged to nuclear family while Seeta DA et al [14] reported findings more than our study. In our study, Majority of the women were postmenopausal 150(52.08%) followed by premenopausal 81 (28.13%) and perimenopausal 57(19.79%) respectively. Punia A et al [13] also reported 222 (55.5%) of them were in postmenopausal state and the rest (44.5%) in perimenopausal state. Joseph N et al [2] reported that most of the

participants were postmenopausal women 80(72.7%) followed by perimenopausal 17(15.5%) and premenopausal women 13(11.8%). In our study, somatic symptoms were reported by 245(85.07%) women followed by psychological symptoms 194(67.36%) and urogenital 59(20.49%) these results are in concordance with study conducted by Joseph N et al, [2] AIDughaiter A et al, [17] Rahman SA et al. [10] In our study, The most prevalent symptoms reported was joint and muscular discomfort 224(77.77%), this result were in concordance with the study conducted by Punia A et al, [13] Joshi M et al, [18] Joseph N et al, [2] Garg R et al, [19] AIDughaiter A et al, [17] Rahman SA et al. [10]

Second most prevalent symptom was physical and mental exhaustion 157(54.51%) which was similar to study by Joseph N et al, [2] AIDughaiter A et al, [17] Rahman SA et al. [10] Srivastava M et al, [4] Pal A et al [3] observed most common menopausal symptom as physical and mental exhaustion.

Other symptoms found were heart discomfort 94(32.63%) and sleep problems 93(32.29%) followed by symptoms of hot flushing 82(28.47%), irritability 82(28.47%), depressive mood 63(21.88), anxiety 56(19.44%). Women also had bladder problems 50(17.36%), vaginal problems 29(10.07%), sexual problems 19(6.60%). In study by Satpathy M [8] occurrence of hot flushes and night sweats (67%), joint pain (68%) were very high. Menopausal symptoms were recorded differently by different studies. In our study Somatic, psychological and urogenital symptoms were significantly higher in postmenopausal women. Nisar N, Ahmed Sohoo N, [16] Pal A et al [3] also got similar results. While in study by Satpathy M [8] psychological problems were more in premenopausal and perimenopausal women than postmenopausal 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

Most women suffered from somatic symptoms followed by psychological and urogenital symptoms. The commonest menopausal symptom was joint and muscular discomfort. As women passes from premenopause to perimenopause to postmenopause menopausal symptoms were increased. Menopausal clinics needs to be established within the current primary health care system to create awareness among menopausal women regarding early identification of common menopausal symptoms and its prompt management. Limitations- A cross-sectional study of this nature cannot exclude the role of other confounding effects of the natural aging process that may influence the experience of these symptoms.

ACKNOWLEDGMENT

Authors would like to thank participants, Coordinators of department of community medicine IGGMC, Nagpur for their assistance and support.

Financial support-None

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How to cite this article: 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.
