

Research Article



A Crosssectional Study on Prevalence of Menopausal Symptoms in A Tertiary Care Hospital, Telangana, India

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ABSTRACT

Menopause is stoppage of menstrual cycle permanently due to loss of ovarian follicular activity, menopause generally occurs by 55 years of age. Perimenopause is a phase of transition, Women having no menstrual cycle for ≥ 12 months are categorized as postmenopausal women, during these phases women experience debilitating symptoms that should be recognized and managed appropriately this study emphasizes clinical pharmacists role in managing symptoms through life style modifications. The main objective of the study is to determine prevalence of perimenopausal and postmenopausal symptoms by using Menopause Rating Scale (MRS). This is a cross sectional study conducted on 650 participants of age 40-65 years in areas in and around sangareddy for a period of 6 months. Out of 650 participants 254(39.07%) are perimenopausal and 396(60.93%) postmenopausal, most prevalent symptoms were muscle and joint pains in 97.07%, sleep problems in 94.15%, depressive moods in 93.38%, tiredness in 92.61%, hot flushes and night sweats in 88.15% of participants respectively. The study reveals most of the women (36%) reaching the menopause at the age group of 46-50. The study also reveals that there was no significant relationship between the occupation and occurrence of menopausal symptoms. The somatic symptoms like hot flushes & night sweats and heart discomfort observed mostly in post menopausal patients, where as the psychological symptoms like irritability and anxiety observed in peri menopausal patients.

Keywords: Menopause, Perimenopause, post menopause, quality of life, prevalence of symptoms.

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INTRODUCTION

Menopause is defined as the permanent cessation of menstruation and ovulation due to failure of ovaries.¹ Generally after 12 months of continuous amenorrhea without pathological etiology, the menopause is considered natural or spontaneous menopause. Sometimes menopause can also be induced prematurely i.e. before 40 years of age or early i.e. before the age of 45 years. It generally occurs between the ages of 47 to 58 years and 90% of women experience menopause by Age of 55. There are 3 stages in menopause, those are pre menopause, peri menopause and post menopause. During this menopausal transition period there is a lot of fluctuations in the hormone levels and women may experience several symptoms.² Among

these symptoms some symptoms are so severe that they can affect the quality of life.³ It is unfortunate that most of the women even not aware of these symptoms during menopause. These symptoms are mainly due to the depletion of estrogen levels as women approaches menopausal stage.^{4,5} The major symptoms observed in menopause women are grouped in to vasomotor symptoms (Hot flushes and night sweats), physical symptoms, psychological symptoms (Anxiety, depression, mood changes) and sexual dysfunction.⁶ Several studies reveal that the event of menopause is highly variable in timing and pattern. Several scales are available to assess the menopausal symptoms among those scales the Menopause Rating Scale (MRS) is widely used one.⁷

METHODOLOGY

This is a cross sectional study conducted in Sangareddy mandal for a period of 6 months. The study population includes females 40-65 years of age. Participants were enrolled in the study only after signing informed consent form. The participant data was collected using standard questionnaire, it includes demographic details, gynaecological history, sexual history, and list of somatic, vasomotor and genitourinary symptoms. Based



on these parameters females were segregated into peri menopausal and postmenopausal groups. Rating is done to ascertain severity of symptoms using menopause rating scale (MRS).

Females were educated on menopausal symptoms and improving menopausal health, quality of life is improved by assessing the symptoms and providing symptom based life style recommendations.

Analysis of data

The data were collected from community setting paying due attention to inclusion and exclusion criteria. Data will be presented as percentages and frequencies of the symptoms among women with different menopause statuses and tabulated. Data was analysed using chi square test and p value statistic. Data will be presented as mean +/- SD for all the quantitative variables.

Obtaining clearance from institutional ethics committee.

For obtaining the ethical clearance an application along with study protocol, which include the study title, study site, inclusion and exclusion criteria, objective and methodology about work to be carried out was submitted to the institutional ethical committee of MNR hospital.

RESULTS

Table 1 reveals that, Out of the total population 650, 252 (38.77%) participants fall under peri menopause state and 398 (61.23%) participants fall under post menopause state respectively.

Table 1: Distribution of participants on the basis of menopause status.

Satus of participants	Number of participants
Peri menopause	254 (39.07%)
Post menopause	396 (60.93%)

Table 2 reveals that 49(7.54%) participants fall under the age group of 40-45, 240 (36.93%) participants fall under the age group of 46-50, 186 (28.61%) participants fall under the age group of 51-55, 164 (25.22%) participants fall under the age group of 56-60, 11 (1.69%) participants fall under the age group of 61-65 respectively.

Table 2: Age based distribution of Participants.

Age	Number of Participants
40-45	49 (7.54%)
46-50	240 (36.93%)
51-55	186 (28.61%)
56-60	164 (25.22%)
61-65	11 (1.69%)

From the table 3, it is evident that Out of 650 participants 359 (55.23%) participants were homemakers, 251

(38.62%) participants were labourers, 18 (2.77%) participants were teachers, 10 (1.54%) participants were nurses, 3 (0.46%) participants were having private job, 2(0.31%) participants were having bank jobs. 7 (1.07%) participants were working as house maid, cook, tailor, tea stall owner and business.

Table 3: Occupation of the participants.

Occupation	Number of participants	P*
Home maker	359 (55.23%)	0.5449
Labourer	251 (38.62%)	
Teacher	18 (2.77%)	
Nurse	10 (1.54%)	
Private job	3 (0.46%)	
Bank employee	2 (0.31%)	
Buisness,cook, house maid, lab technician, tailor, tea stall owner	7 (1.07%)	

*P<0.05 statistically significant

The proportion of menopausal symptoms among participants according to menopause status were discussed in Table 4, which illustrates that out of 650 participants, the distribution of somatic symptoms were as mentioned here. The hotflashes and night sweats were reported by 218 (85.82%) perimenopausal and 355 (89.64%) postmenopausal participants. Heart discomfort was reported by 102 (40.15%) perimenopausal and 247 (62.37%) postmenopausal participants. Sleep problems were reported by 231 (90.94%) perimenopausal and 381 (96.21%) postmenopausal participants. Muscle and joint pains were reported by 238 (93.70%) perimenopausal and 393 (99.24%) postmenopausal participants.

Out of the 650 participants, The psychological symptoms like depressive moods were reported by 230 (90.55%) perimenopausal and 377 (95.20%) post menopausal participants. Irritability was seen in 213 (83.85%) perimenopausal and 332 (83.83%) in postmenopausal participants. Anxiety was seen in 200 (78.74%) perimenopausal and 310 (78.28%) in postmenopausal participants. Tirednes was reported by 224 (88.18%) perimenopausal and 378 (95.45%) postmenopausal participants and the urogenital problems like Sexual problems were experienced by 63 (24.80%) perimenopausal and 68 (17.17%) post menopausal participants. Bladder problems were reported by 95 (37.40%) perimenopausal and 239 (60.35%) postmenopausal participants. Vaginal dryness was reported by 95 (37.40%) perimenopausal and 203 (51.26%) postmenopausal females.



Table 4: Distribution of menopausal symptoms among participants based on the menopause status

Symptoms	ALL (n= 650)	Perimenopause (n= 254)	Postmenopause (n=396)	P*
SOMATIC				0.0247
Hot flushes & Night sweats	573 (88.15%)	218 (85.82%)	355 (89.64%)	
Heart discomfort	349 (53.69%)	102 (40.15%)	247 (62.37%)	
Sleep problems	612 (94.15%)	231 (90.94%)	381 (96.21%)	
Muscle and joint pain	631 (97.07%)	238 (93.70%)	393 (99.24%)	
PSYCHOLOGICAL				0.8806
Depressive moods	607 (93.38%)	230 (90.55%)	377 (95.20%)	
Irritability	545 (83.84%)	213 (83.85%)	332 (83.83%)	
Anxiety	510 (78.46%)	200 (78.74%)	310 (78.28%)	
Tiredness	602 (92.61%)	224 (88.18%)	378 (95.45%)	
UROGENITAL				0.0002
Sexual problems	131 (20.15%)	63 (24.80%)	68 (17.17%)	
Bladder problems	334 (51.38%)	95 (37.40%)	239 (60.35%)	
Vaginal dryness	298 (45.84%)	95 (37.40%)	203 (51.26%)	

*P<0.05 statistically significant.

The severity of menopausal symptoms according to menopause rating scale was depicted in table 5, which illustrates that among somatic symptoms mild hot flushes and night sweats were reported by 250 (38.46%), moderate symptoms by 311 (47.84%), severe symptoms by 11 (1.69%) and very severe symptoms by 1 (0.153%) participant, experiencing no symptoms were 77 (11.84%). [SD : 0.20]. Another somatic symptom, heart discomfort mild symptoms were observed in 252 (38.76%), moderate 95 (14.61%), severe 1 (0.153%) very severe 1 (0.153%) participants.[SD: 0.21]. Participants experiencing symptoms of mild sleep problems 162 (24.92%), moderate 358 (55.07%), severe 85 (13.07%), very severe 7 (1.076%) and none 38 (5.84%).[SD:0.20] Participants experiencing symptoms of mild muscle and joint pain 58 (8.92%), moderate 98 (15.07%), severe 347 (53.38%), very severe 128 (19.69%)[SD :±0.19].

Table 5: Menopausal symptoms and severity according to menopause rating scale.

SYMPTOMS	None	Mild	Moderate	Severe	Very Severe
SOMATIC					
Hot flushes and night sweats	77 (11.84%)	250 (38.46%)	311 (47.84%)	11 (1.69%)	1 (0.153%)
Heart discomfort	301(46.30%)	252 (38.76%)	95(14.61%)	1(0.153%)	1 (0.153%)
Sleep problems	38 (5.84%)	162 (24.92%)	358 (55.07%)	85(13.07%)	7(1.076%)
muscle and joint pain	19 (2.92%)	58 (8.92%)	98 (15.07%)	347(53.38%)	128(19.69%)
PSYCHOLOGICAL					
Depressive moods	43(6.61%)	343(52.76%)	241(37.07%)	19(2.93%)	4(0.615%)
Irritability	105(16.1%)	349(53.69%)	184(28.30%)	11(1.69%)	1(0.153%)
Anxiety	140(21.53%)	258(43.84%)	200(30.76%)	23(3.53%)	2(0.30%)
Tiredness	48(7.38%)	155(23.84%)	255(39.23%)	164(25.23%)	28(4.307%)
UROGENITAL					
Sexual problems	519(79.84%)	118(18.15%)	13(2%)	0	0
Bladder problems	316(48.61%)	185(28.46%)	144(22.15%)	5(0.76%)	0
Vaginal dryness	352(54.15%)	241(37.07%)	56(8.615%)	1(0.153%)	0

In psychological symptoms mild depressive moods were observed in 343 (52.76%) participants, followed by moderate in 241(37.07%) participants, severe in 19 (2.93%) participants and very severe in 4 (0.615%) participants respectively. (SD: 0.23).

Similarly mild irritability was observed in 349 (53.69%) participants, followed by moderate in 184 (28.30%) participants, severe in 11 (1.69%) participants and very severe mild irritability symptoms in 1 (0.153%) participant respectively. (SD:0.19). and also 258(43.84%) participants were experienced mild anxiety followed by 200(30.76%) participants moderate and 23(3.53%) participants experienced severe anxiety symptoms respectively.(SD: 0.18)

In urogenital symptoms, mild sexual problems experienced by 118 (18.15%) participants, moderate sexual problems in 13 (2%) participants respectively. (SD: 0.374).

Similarly mild bladder problems were observed in 185 (28.46%) participants, moderate symptoms in 144 (22.15%) participants and severe mild bladder problems in 5 (0.76%) participants respectively.(SD:0.19) and also 241 (37.07%) Participants experiencing mild vaginal dryness, moderate symptoms in 56 (8.615%) participants and severe vaginal dryness observed in 1(0.153%) participant respectively. [SD:± 0.19].

DISCUSSION

This study was conducted on 650 females from 40-65 years of age, among the selected participants 254 (39.07%) were perimenopausal and 396 (60.93%) were postmenopausal. The study focuses on prevalence of menopausal symptoms in perimenopausal and postmenopausal women of rural community. Among the sampled participants mean age for perimenopause was 47.9 years [SD±2.8] years and post menopause was 54.7 years SD ± 2.4 years, mean age of sample was found to be 52.5 years [SD ± 3.08] years. Study done by borker et al Kerala reported the mean age of study population was found to be 48.26 years [SD ± 4.86] years. Mean age in this study was found to be slightly on the higher scale compared to other studies due to regional differences, environmental factors, genetic factors. Mean menarche age in this study was found out to be 11.5 years [SD ± 2.0] years. The findings in this study suggest that females of rural region have late Perimenopause, menopause and post menopause. Among the study 88.92% of the participants were married and 11.08% of the participants were widowed, the P value was found to be significant. In the present study 55.23 % of participants were homemaker and 38.62% of participants were daily wage labourers P value for this parameter was found out to be not significant suggest that no relation exist between menopause and occupation. Out of the total population, 67.53% of participants were found to be addicted to toddy, alcohol, smoking beedi. 32.47% of participants were unaddicted. 400 participants were addicted to toddy (palm wine, alcoholic beverage created

from sap of various species of palm tree.), 19 were addicted to alcohol, 14 participants were addicted to beedi smoking, 4 participants take tobacco, 2 participants take both alcohol, tobacco and toddi, beedi. The P value is not significant for this parameter, suggesting that no relation exist between having addictions and menopause. Some studies suggest that daily consumption of alcohol may trigger hot flushes.

This study compares the prevalence and frequency of symptoms in perimenopausal and postmenopausal women. Most prevalent somatic symptom in this study was muscle and joint pains reported mostly by postmenopause participants (97.07%) in overall sample, followed by sleep problems observed in 94.15% of participants and reported mostly in postmenopause participants, 88.15% of the participants reported hot flushes and night sweats seen higher in postmenopause participants. P value is found to be significant, suggesting that there is a difference between prevalence of symptoms in perimenopausal and postmenopausal participants. Most prevalent psychological symptom in this study was depressive moods seen in (93.38%) of participants seen higher in postmenopause followed by tiredness in 92.61% participant. P value is not significant for this parameter suggesting no relation between psychological symptoms in perimenopausal and postmenopausal women. Most prevalent urogenital symptom was bladder problems observed in 51.38% of total population and observed more seen in postmenopause participants, followed by vaginal dryness 45.84% of total population . Study done by *khatoon et al* reported 75% hot flushes in women aged 40-50 years, 77.78% muscle and joint pains in 51-55 years. Study done by *sudha bala et al* reported 73% muscle and joint pain, 24% hot flushes, 22.6% sleep problems.

CONCLUSION

The study reveals most of the women (36%) reaching the menopause at the age group of 46-50. The study also reveals that there was no significant relationship between the occupation and occurrence of menopausal symptoms. The somatic symptoms like hot flushes & night sweats and heart discomfort observed mostly in post menopausal patients, where as the psychological symptoms like irritability and anxiety observed in peri menopausal patients. The study also enumerates that the urogenital problems like vaginal dryness and bladder problems were associated more with peri menopausal patients.

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