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Menopausal Problems and Its Determinants: A Comparative Study in Western Odisha, India.

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Abstract: The current study seeks to examine the variations in menopausal characteristics between urban, rural and tribal women and its impact on them could be predicted from different sociodemographic variables related to their place of resident. This cross-sectional study was conducted on 330 menopausal women (rural 110; urban 110; tribal 110) coming from western Odisha. Data were collected on sociodemographic variables, reproductive history, and menopausal symptoms through interview technique by using a pretested questionnaire. From Bivariate analyses (chi square test& odd ratio) revealed that urban-rural and rural-tribal differences found in menopausal age and menopausal problems e.g., physical & physiological, vasomotor, vaginal problems, bone problems, psychological, and urinary problems. Residential statuswas found to be a significant predictor of some of the menopausal symptoms.

Keywords: Menopause, Age, Symptoms, Residential difference

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I. INTRODUCTION

Menopause is a unique reality of life, the explanation of which is remain undeciphered completely by man. Menopause is one such midlife stage which might be overcome easily or make a lady miserable depending on her luck. This phase of life is shrouded with lots of myths and taboos.[1] Early recognition of symptoms can help in reduction of discomfort and fears among the women. World Health Organization (WHO) has defined post-menopausal women as those women who have stopped menstrual bleeding one year ago or stopped having periods as a result of medical or surgical intervention (Hysterectomy/Oophorectomy) or both. With increasing life expectancy, women spend 1/3rd of life in this phase.[2] It is estimated that by the end of 2015 there will be 130 million elderly women in India, necessitating substantial amount of care.[3] Menopausal symptoms, though well tolerated by some women, may be particularly troublesome in others. Severe symptoms compromise overall quality of life for those experiencing them. There is under-reporting of symptoms among Indian women due to socio cultural factors. According to literature, at least 60% of ladies suffer from mild to moderate symptoms and 20% suffer severe symptoms and 20% from no symptoms.[4] During the transition to menopause, women may experience vasomotor, urogenital, psychosomatic, and psychological symptoms, as well as sexual dysfunction. The prevalence of each of these symptoms related to menopause varies across ethnic and socioeconomic groups, and between rural and urban. Some researchers have observed socioeconomic (e.g., working status and income); lifestyle (e.g., smoking and dietary practices); and biological variables (e.g., body weight and parity) as predictors of menopausal symptoms (Dasgupta and Ray,2009).

II. METHODS

In the current study, Western Odisha was selected as the area of the study. This state is located in the southeastern part of India. Data were collected from 330 menopausal women belonging to the Jharsuguda District from the rural, urban and tribal areas (rural 110; urban 110; tribal 110). Data on rural women were collected from villages that are under the Jharsuguda Block and Kolabira Block in the District of Jharsuguda, data on urban women from municipal wards of Jharsuguda and on tribal women from Munda and Oram tribes reside in the adjacent area of Jharsuguda block of District of Jharsuguda. The district is well known as an industrial belt in the state of Odisha.

The questionnaire was designed and the information was collected by an interview technique on their sociodemographic characters like (age, education, occupation, type of family, socio-economic status, menopausal status) and about reproductive history (age at menarche, age at marriage, parity, use of oral contraceptives, duration of breastfeeding, experience of fetal loss and age at menopause) of the respondents. The data on different symptoms had experienced by the women during and after menopause was collected by a modified 36 items questionnaire on different symptoms followed from different literatures. The symptoms were

classified as physical & physiological, vasomotor, vaginal, psychological, and urinary. The purpose of this study was to assess and compare the different symptoms experienced by the menopausal women residing in urban, rural and tribal areas of Western Odisha. This is a descriptive comparative study carried out between the period of April 2018 to July 2018.

Inclusion criteria

330 women (110 from each area) at the age of 35 to 55 years and, residing in a selected rural, urban and tribal areas of Odisha, were selected by non-probability purposive sampling technique.

Exclusion criteria

The exclusion criteria for sample was women below the age of 35 and above the age of 55 and who did not give their consent for collection of information.

Aim: The purpose of research was explained to all of the study samples and verbal consent was taken from each of them before the data were collected. Statistical analysis of the data was done using appropriate statistical tools. The nonparametric tests (chi-square and odds ratio) to determine the association between the prevalence of menopausal symptoms and urban, rural and tribal residence. One-way ANOVA was calculated to study the mean difference of age at menopause, age at menarche, age at marriage and mean number of live births.

III. RESULTS

Table no 1: Demographic characteristics of the study subjects

Demographic variables	F (%) of respondents				
Age	Urban	Rural	Tribal	Total	*P* value
35-40	43(39.09)	39(35.45)	37(33.63)	119(36.06)	.113
40-45	36(32.72)	24(21.81)	22(20)	82(24.84)	
45-50	19(17.27)	28(25.45)	28(25.45)	75(22.72)	
50-55	12(10.9)	19(17.27)	23(20.9)	54(16.36)	
Educational Status					NA
Illiterate	-	33(30)	61(55.45)	94(28.48)	
literate	110(100)	77(70)	49	236	
Occupation					.000
Housewife	51(46.36)	71(64.54)	42(38.18)	164(49.69)	
employed	59	39	68	166	
Type of family					.073
joint	17(15.54)	31(28.18)	24(21.81)		
nuclear	93	79	86		
SES					.000
Low	101	39	8	148	
Middle	9	48	102	159	
High	-	23	-	23	
Menopausal Status					.048
Pre-Menopause	28(25.45)	47(42.72)	44(40)	119(36.06)	
Peri Menopause	33(30)	30(27.27)	32(29.02)	95(28.78)	
Post Menopause	49(44.54)	33(30)	34(30.9)	116(35.15)	

Note: * p<.05

The average age of the participants from urban, rural and tribal areas was 44.93± 5.18, 45.75±4.22 and 48± 3.16 years, respectively. Table 1 reveals that the study population comprised, most of the women were in the age group of 35-40 years from urban rural and tribal areas that was 39.09%, 35.45%, 33.63% respectively. There was no illiteracy is found in urban area and 35.45% women had graduate and above degrees. At the same time illiteracy rate was higher in women from tribal community i.e. 55.45%. Maximum numbers of women from all the three areas were house wife. 32.72% of women from urban area and 8.18% of women from rural area were professionals but 51.81% of tribal women were laborer in construction sites. There was a significant difference observed in the occupational status of the respondents ($\chi 2 = 16.024$, df = 2). The range of income disparity among urban, rural and tribal were found so wide. 71.81% of urban respondents had monthly income above 30,000 where as in rural areas the highest monthly income laid in between 15,000 to 20,000 and a wide

variation was found in tribal areas that is 84.54% women had monthly income below 10,000 and only 2072% had 15,000 to 20,000 of monthly income. There was a statistically significant residential difference was found in the socio-economic status of the respondents ($\chi 2 = 164.828$, df = 2).

Table no 2: Reproductive History of the Respondents

Mean Age	Urban	Rural	Tribal
1. At Menarche	13.82±1.35	13.86±1.15	14.25±0.81
2. At Marriage	20.13±3.61	19.35±2.46	17.96±1.73
3. Mean no. of Live Birth	2±1.2	2±1.2	2±1.07
4. At Menopause	44.93±5.18	45.75±4.22	48±3.16
5.Use of contraceptive No (%)			
Yes	190(57.57)		
No	118(35.75)		
6. Duration of breastfeeding			
One Year	106(32.12)		
More than One Year	202(61.21)		
7. Fetal Loss			
Yes	77(23.33)		
No	231(70)		

The mean age at menarche of the tribal women was higher (14.25) years than that of the rural and urban areas (Table 2). However, the mean age of menarche was found to be similar in both urban women (13.82) and rural women (13.86) years. The mean age at menopause in the study respondent was 46.32 ± 5.65(urban+rural+tribal) years and interestingly found that 6% of the women attaining menopause before the age of 40. Among these three groups there was also a significant difference found in mean age at menopause (F ratio = 7.09, p=0.001). The mean age at menopause was higher in tribal area (48.97) years followed by rural women (46.21) years and urban women (44.36) years. The mean age at marriage was 19.67±3.14 and a significantly difference result found among the women (F ratio = 6.52, p =0.001). It was interestingly observed that the mean number of live births of the rural women was lower than that of the urban women and tribal women 2.4±1.2,2.6±1.98,2.6±1.07 respectively. With respect to family planning practices, more than 50% of the women used different contraceptives by consulting doctors, nurses and ANMs. The number of women experienced fetal loss was (23.33%). A majority of women had breastfed their last child for more than 1 year.

Table no 3: Prevalence of Menopausal Symptoms among the Respondents

Symptoms / Areas		Urban	Rural	Tribal	Chi-square	p-value
Physical and Physiological Changes (%)	Headache	53(48.14)	31(28.18)	12(10.9)	37.107	<0.00001*
	Painful Muscle	59(53.63)	48(43.63)	33(30)	12.678	.001*
	Cold Feet& hand	37(33.66)	26(23.63)	27(24.54)	3.391	.183
	Crawling Ant sensation	37(33.66)	32(29.09)	30(27.27)	1.125	.569
	Tingling of Feet	45(40.9)	38(34.54)	22(20)	11.649	.002*
Vasomotor Changes (%)	Hot flashes	79(71.81)	68(61.81)	56(50.9)	10.163	.006*
	Night sweats	75(68.18)	57(51.81)	47(42.72)	14.748	.000*
	Insomnia	58(52.72)	42(38.18)	19(17.27)	30.307	<0.00001*

Urinary Bladder Problems (%)	Frequent urination	67(60.9)	58(52.72)	61(55.45)	1.552	.460
	Urge incontinence	62(56.36)	59(53.63)	35(31.81)	15.974	.460
Collagen Changes (%)	Vaginal Dryness	44(40)	32(29.09)	30(27.27)	4.781	.091
	Itching of Vagina	36(32.72)	42(38.18)	39(35.45)	0.715	.699
	Dry Skin	48(43.63)	36(32.72)	42(38.18)	2.773	.249
Bone Problems (%)	Joint Pain	88(80)	72(65.45)	58(52.72)	18.273	.0001*
	Pain in lower Back	69(62.72)	55(50)	42(38.18)	13.261	.001*
	Pain in Knees	38(34.54)	11(10)	8(7.27)	34.736	<0.00001*
Psychological problems	Anxiety	72(65.45)	50(45.45)	39(35.45)	20.545	.000*
	Irritability	72(65.45)	69(62.72)	68(61.81)	0.339	.843
	Forgetfulness	69(62.72)	56(50.90)	39(35.45)	16.461	.0002*

Note: * p<.05

Table no 3.1: Prevalence of Symptoms with Urban-Rural and Rural-Tribal Differences

Menopausal Symptoms	Urban - Rural		Rural -Tribal	
	OR with 95%C.I.	**P Value**	**OR with 95%C.I.**	**P Value**
Headache	2.3696 (1.3549-4.144)	0.0025*	3.2046 (1.5454-6.6453)	0.0017*
Painful Muscle	1.4943 (0.8783-2.5423)	0.1385	1.8065 (1.0368-3.1475)	0.0368*
Tingling of Feet	1.3117 (0.7593-2.2662)	0.3307	2.1111 (1.1465-3.8873)	0.0164*
Hot flashes	1.5740 (0.8936-2.7725)	0.1163	1.5612 (0.9131-2.6694)	0.1036
Night sweats	1.9925(1.1513-3.4483)	0.0138*	1.4416 (0.8472-2.4531)	0.1775
Insomnia	1.8059(1.0558-3.0887)	0.0309*	2.9582 (1.5812-5.5343)	0.0007*
Urge incontinence	1.1165(0.6562-1.8996)	0.6844	2.4790 (1.4317-4.2925)	0.0012*
Joint Pain	2.1111(1.1465-3.8873)	0.0164*	1.6987 (0.9872-2.9230)	0.0557
Pain in Knees	4.7500(2.2741-9.9213)	<0.0001*	1.4167 (0.5469-3.6696)	0.4732
Anxiety	2.2737(1.3205-3.9150)	0.0031*	1.5171 (0.8826-2.6078)	0.1316
Forgetfulness	1.6228(0.9479-2.7784)	0.0776	1.8879 (1.0994-3.2420)	0.0212*

Note: * p<.05

Table 3 & 3.1 shows that the urban-rural and rural – tribal comparison of women affected by different menopausal symptoms. It was revealed from these tables that the urban women 2.3 times more affected by headache than rural women and at the same time rural women were 3 times more affected than tribal women. The Vasomotor symptoms like night sweat as more likely to affected urban women than rural women but hot flashes found to be affected to all group similarly. Insomnia found to be 2.5times more in rural women than its tribal counterpart. With respect to urinary problems urge incontinence 2.5 times more in rural women Bone problems like joint pain significantly 2 times more in urban women than its rural counterpart and there was no

significant difference found in rural and tribal areas. Prevalence of knee pain was significantly four times higher women than rural counter parts. The psychological expressed by the urban women were higher than the rural and tribal women. The problems like anxiety affected twice as many urban women than rural women but forgetfulness was significantly higher in rural women than tribal women. Other problems like cold feet and hand, crawling sensation, frequent urination, vaginal problems, irritability were experienced by all group of women to different extent.

Table no 4: Mean age at Menopause Comparison of present study with other studies

Indian studies	Year	Region	Mean age (year)
Present study	2019	Western Odisha	46.22
Borker et al	2013	Urban women	48.26
Madhukumar&Gaikwad	2012	Women of Bangalore rural	49.7
Sarker et al	2014	Urban women from Jamnagar	45.3
Mahajan et al	2012	Women from North India	44.54
Peeyananjarassri et al	2006	Women from southern Thailand	48.7
Karmakar et al	2017	Rural women of West Bengal	45.93
M Ahuja	2016	PAN India Survey	45.59

Table no 5: Most Frequent Menopausal Symptoms Comparison of present study with other studies

Present study	2019	Headache, painful muscle, cold feet and hand, crawling ant sensation, tingling of feet 29.09%, 42.42%, 27.27%, 30%, 31.81% respectively. Hot flashes, night sweats and insomnia 61.51%,54.24%, and 36.06% respectively, frequent urination 56.36%, joint pain 66.06%, anxiety48.78%, irritability 63.33% and forgetfulness 49.69%.
Madhukumar&Gaikwad	2012	Aching in muscle and joints, feeling tired, poor memory, lower backache and difficulty in sleeping.
Mahajan et al	2012	Hot flashes 56%, cold sweats52%, fatigue 62%, backaches51%, hypertension 23%, arthritis 25% &diabetes 6%.
Peeyananjarassri et al	2006	hot flushes, night sweats, and vaginal dryness in women with aged 45-65 years were 36.8%, 20.8%, and 55.3%, respectively.
Borker et al	2013	Depression, irritability (90.7%), headache (72.9%), lethargy 65.4%), dysuria (58.9%), forgetfulness (57%), musculoskeletal problems (53.3%), sexual problems (decreased libido, dyspareunia) (31.8%), genital problems (itching, vaginal dryness) (9.3%).
Sarker et al	2014	Joint pain (64%), backache (58%), irritability (56.66%), forgetfulness and sadness (48%) and vasomotor symptoms like hot flushes and night sweats (47.33%).
LenkaC.L	2016	Common health problems of respondents were such as backache (61.7%), body ache (51.7%), joint pain (31.6%), hot flashes (81.7%), sweating (63.3%), loss of memory (35.8%), alopecia /loss of hair (84.2), dryness and itching of vagina (26.7%), migraine (37.5%), depression (45.8%), irritability (69.2%), weight gain (37.5%), swelling on feet (24.2%) and insomnia (18.3%) .
Karmakar et al	2017	Hot flushes 60%, 47% sweating 47%, anxiety and nervousness (94%) and depression (88%), lack of energy occurring in 93%, 5% suffering from growth of facial hair and sexual changes 49%.

IV. DISCUSSION

Menopause is a normal body process which is experienced by every woman in their life span. It is the transition from reproductive capacity to non-reproductive part of life. Due to hormonal imbalance with the attainment of menopause women faces many physical and psychological problems which affect their quality of life a lot. The present study undertaken to know the symptomatology of menopause and states that there was a strong statistically significant association between area, age & menopausal status. In developing countries the mean age of menopause is 44-45 years as compared to developed countries where the figures are slightly on a higher side.[5,6,7] The mean age was higher 49.7 presented by Madhukumar& Gaikwad[13] in women from rural areas of Bangalore. From the National Family and Health Survey-2 (1998-99) data found that the mean age at menopause of Indian women is 44.3 years and that 11% of women attain menopause before the age of 40. This frequency has increased slightly (0.5%) in subsequent years (Indian Institute of Population Sciences & ORC Macro, 2007). Dasgupta and Ray in 2009 reported that the women (rural and urban from Estern India) had a age at menopause 46.14 with 4% of them reaching menopause before the age of 40. However, in the present research, the mean menopausal age was 46.22 with 6% reaching menopause before 40. This might be due to regional variations, environmental factors, and genetic factors.

The available literature revealed that women suffering from hot flushes ranges between 47% to 81% (Sarkar et al 2014; Mahajan et al 2012, Lenka 2016, Karmakar 2017). Mahajan, *et al*. 2012 did a study in North India regarding health issues of menopausal women and found that mean number of symptoms was found to be increasing linearly with rising age of the study subjects. They have also mentioned about a report by WHO, which states that hot flushes are prevalent more in European and North American populations as compared to Asians. In the current study, 61% women had reported hot flushes and 54%-night sweats as post-menopausal symptoms. Different psychological symptoms like anxiety, depression, irritability, forgetfulness was reported by different researchers ranges from 35% to 94% (Lenka 2016; Sarkar et al 2014; Borker et al; Karmakar 2017) but in the present study it was found to be lower that anxiety 48%, irritability 63% and forgetfulness 49%. It was observed from different study that the symptoms were affected by various predictors like age, residential status, duration of breastfeeding, educational status etc. (Dasgupta 2009) but in the current study age at menopause, use of contraceptive and educational status were predictors for vaginal problems whereas age at menarche was he predictor for vasomotor symptoms and experienced of fetal loss and occupation of women were the significant factors for psychological symptoms like anxiety.

V. CONCLUSION

According to (World Health Report, 1998; WHO, 2000) the percentage of elderly women are increasing in India, a recent trend of advancement in the age of Indian menopausal women has been observed from various studies. If this continues to happened a large number of Indian women may experience a longer period of menopause with menopausal health problems. India is a country with diversity in ecology, economic status, social status, cultural norms, availability and accessibility of health care and education. Particularly the urban areas are exposed to modernization which effect their lifestyle, educational status, health status and medical services. The prevalence of menopausal symptoms was definitely high among urban women in the current study. That might be due to faulty food habit and modern lifestyle. At the same time the answers regarding problems of menopause was comparatively less in tribal people. The tribal women were mostly responsible for their family livelihood and they ignore their health status. Average 40% of rural women were suffered from different problems during their menopausal period. So further large samples studies are needed to find out the problems of menopause in different region and its necessary solutions are work out for the betterment of the women.

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REFERENCES

[1]. Kulshreshtha B, Ammini A. Hormone replacement therapy. In: Sharma OP, editor. Geriatric care: A textbook of geriatrics and gerontology. 3rd ed. New Delhi: Viva Books Publishers. 2008; 647–50.
[2]. Vaze N, Joshi S. Yoga and menopausal transition. J Midlife Health.2010;1:56–8.
[3]. Mishra N, Mishra V.N.Devanshi . Exercise beyond menopause: Dos and don'ts. J Midlife Health.2011;2:51–6.
[4]. TumbullS.Yoga as a treatment for menopausal symptoms. J Yoga Ontogenet and Therapy Investig.2010; 2:14–5.
[5]. Sharma S, Tandon V.R. Mahajan A. Menopausal symptoms in urban women. JK science.2007; 9(1):13–7.

[6]. Bagga A. Age and symptomatology of menopause: A case study. Obstet and Gynecol Today.2004;10:660–6.
[7]. Shah R, Kalgutkar S, Savardekar L, Chilang S, IddyaU.Menopausal symptoms in urban Indian women. Obstet and Gynecol Today. 2004; 11:667–70.
[8]. Saka M, Saidu R, Jimoh A, Akande T, OlatinwoA.Behavioral pattern of menopausal Nigeria women. Ann Trop Med and Public Health.2012;5:74–9.
[9]. Bairy L, Shalini A, Bhat P, Bhat R. Prevalence of menopausal symptoms and quality of life after menopause in women from South India. Aust N Z J Obstet Gynaecol.2009; 49:106–9.
[10]. Lu J, Liu J, Eden J. The experience of menopausal symptoms by Arabic women in Sydney. Climacteric.2007;10:72–9.
[11]. Peeyananjarassri K, Cheewadhanaraks S, Hubbard M, Zoa Manga R, Manocha R, Eden J. Menopausal symptoms in a hospital-based sample of women in southern Thailand. Climacteric.2006;9:23–9.
[12]. Mahajan N, Aggarwal M, Bagga A. Health issues of menopausal women in North India. J Midlife Health.2012; 3:84–7.
[13]. Madhukumar S, Gaikwad V, Sudeepa D. A Community Based Study on Perceptions about Menopausal Symptoms and Quality of Life of Post-Menopausal Women in Bangalore Rural International. Journal of Health Sciences & Research. 2012; 2(3):49-56.
[14]. Karmakar N, Majumdar S, Dasgupta A, Das S. Quality of life among menopausal women: A community-based study in a rural area of West Bengal. J of Midlife Health.2017;8(1):21-27.
[15]. Sarkar A, Pithadia P, Goswami K, Bhavsar S, Makwana N, Yadav S, Parmar D. A study on Health Profile of Post-menopausal Women in Jamnagar district, Gujurat. Journal of Research in Medical and Dental Science. 2014; 2(2):25-29.
[16]. Ahuja M. (2016). Age of menopause and determinants of menopause age: A PAN India survey by IMS. J Midlife Health. Jul-Sep.2016; 7(3): 126–131.
[17]. Lenka C, Sundarray S. Health problems of women after attaining menopause. A study in Bhubaneswar City. Journal of Extension Education. 2015;20(1):171-176.
[18]. Lenka C. Knowledge, Practice and Life style management of postmenopausal women: A study in Odisha. International. Journal of Home Science. 2016;2(3):80-84.
[19]. Borker SA, Venugopalan,PP, BhatSN.Study of menopausal symptoms, and perceptions about menopause among women at a rural community in Kerala. J Midlife Health.2013;4(3):182-187.
[20]. Dasgupta D, Ray S. Menopausal Problems among Rural and Urban Women from Eastern India. Journal of Social, Behavioural and Health Science. 2009; 3(1):20-33.
[21]. Indian Institute of Population Sciences, ORC Macro. (2007). National Family and Health Survey-3, 2005–2006. Vol. 1. Mumbai, India: Author.
[22]. World Health Organization. (1996). Research on the menopause in the 1990s [WHO Technical Report Series No. 866]. Geneva: Author. World Health Organization. (2000). Women aging and health [Fact Sheet No. 252]. Geneva: Author.
[23]. World Health Report. (1998). Life in the 21st century: A vision for all. Geneva: WHO.

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