

Socio-health Seeking Profile of Women in Post Menopausal Age Group: A Study in a Rural Block of Ganjam District, South Odisha

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Abstract

Background: Menopause is defined as “the time when there has been no menstrual periods for 12 consecutive months and no other biological or physiological cause can be identified.” **Objectives:** 1) To describe the socio-demographic characteristics of post menopausal women in study area. 2) To explore out the various factors related to the age at menopause. 3) To assess the health seeking behaviour of study population. **Materials and Methods:** This study was a cross sectional community based observational study which was carried out among Postmenopausal women in 8 selected villages of Chhatrapur block of Ganjam district, Odisha for a period from October 2016 to September 2018 with a sample size of 247. **Results:** In the present study, 39.3% of the study population attained menopause at the age 46-50 years and 11.7% at the age 51-55years. Factors like socioeconomic status, age at menarche, parity, marital status, addiction status, family history of early menopause, BMI and contraception user were found to have statistical significant association with the age at menopause. On logistic regression by adjusting all the variables it was found that age of study population [AOR=3.030 (1.639-5.602)], educational qualification [AOR=11.798 (4.002-34.777)], and occupation [AOR= 3.913 (1.296-11.82)] were found to be significantly associated with the health seeking behaviour. **Conclusion:** In the present study the mean age at menopause was 46.98±4.080 years. Majority of postmenopausal women perceived that menopause occurred due to normal process of ageing. But less than half of the respondents sought treatment because of lack of knowledge about the symptoms and availability of treatment modalities. Awareness and knowledge about all the aspects of menopause should be provided to them through the health workers and women organisation.

Keywords: Behaviour, Health seeking, Menopause, Postmenopausal women.

Introduction

Reproductive ageing in women is a dynamic process occurring over a period of time culminating in menopause, which is a normal “physiological event that occurs universally to all women who reach midlife”.¹ The term ‘menopause’ is derived from the Greek words men (month) and pausis (a cessation, a pause). Menopause is not a disease per se but a condition associated with hormonal changes where oestrogen diminishes to a low level, causing aging-related health problems.²

As per WHO (1996), there were an estimated 467 million women in peri-menopause state in 1990 and this number is expected to increase to 1200 million by the year 2030.³ Out of these, 76% will be living in the developing countries.⁴ The age at which the natural menopause (NM) occurs is between the age of 45 and 55 years worldwide.⁴ During this transition period, women experience different symptoms, like physical disturbances (hot flashes) and psychological complaints (mood swings). The appearance, mental status, stress level, body composition, lipid level and nutritional status all get changed. Most women in India do not understand these symptoms and changes taking place in life, and spend their

valuable life battling these problems and associated diseases. The public health care system of our country has typically concentrated on women of childbearing age. Once women move out of this bracket they receive less attention, so to speak, unless they have access to private health care.⁵

Very few studies have been conducted on the socio-demographic profile of women in post menopausal age group in rural areas of Odisha. Hence there is a need to look into the current status of women in post menopausal age group, their health seeking behaviours to tackle & improve the health aspect of them. With this backdrop an observational, cross-sectional study was conducted in Chhatrapur Block of Ganjam district, Odisha with the following objectives:

- To describe the socio-demographic characteristics of post menopausal women in study area.
- To explore the various factors related to the age at menopause.
- To assess the health-seeking behaviour of the study population.

Materials and Method

- **Study design:** This study was a cross sectional community based observational study, with both descriptive and analytic elements.
- **Study population:** Among Postmenopausal women
- **Study place:** In 8 selected villages of Chhatrapur block of Ganjam district, Odisha.
- **Study period:** For a period from October 2016 to September 2018.
- **Inclusion criteria:**
 - The study population included all the women who had attained natural menopause and who had their last menstrual bleeding at least one year prior to the data collection.
 - Women who gave consent for interviewing.
- **Exclusion criteria:** Those who had undergone hysterectomy due to any cause.
- **Sample size:** Taking the prevalence(p) of hot flushes which is the most common postmenopausal symptom as 60.9%⁶; Relative allowable error as 10%,and confidence interval as 95%.Sample size was calculated using the formula: $(1.96)^2 p q/L^2$; where $p=60.9%$, $q=(100-60.9\%)=39.1%$, $L=10\%$ of $P= (10\% \text{ of } 60.9)$ The sample size came out to be 247.
- **Sampling method:**
 - **Selection of blocks & villages:** Multistage random sampling method was used. Out of 22 blocks in Ganjam, Chhatrapur block was selected randomly using lottery method. Chhatrapur block consists of a total of 80 villages. 10% of the total villages i.e 8 villages were selected by simple random sampling method using random number table.
 - **Selection of desired number of post menopausal women from each villages:** Using probability proportion to size sampling method (PPS), the required number of women in post menopausal group were taken from each village for the study purpose . This gives the total no of women to be included from each villages for our study purpose.
 - **Selection of household:** In the selected village a landmark preferably AWC or school, temple was taken as a central point and by spinning a bottle, the direction of the first lane was decided. First house of that lane was visited ,if the eligible woman was found it was considered to be the first household and starting from that particular household consecutive household were selected till the desired sample was obtained. If in case more than one eligible women were found then the women who was older was selected. If a house was locked or had no women in post menopausal age group or the women present were not willing to give consent, then the adjoining house was visited.

The same procedure was used in selecting the households from all the 8villages, until the desired sample size was achieved.

- **Study instrument:**

A scientifically prepared pre-designed and pre-tested questionnaire was used to record relevant data. A pilot study among 20 subjects from a village in the field practice area of Rural health training centre, Digapahandi was done to know the feasibility, validity, reliability of the study instrument. Necessary modifications were made accordingly and the instrument was finalised.

Table 1: List of villages and total number of study population:

Sr No.	Name of the village	Total female population	Desired no.of postmenopausal women required by using PPS method
1	Bahulagm	764	46
2	Brahamapalli	422	26
3	Bhikaripalli	382	23
4	Kumarbegapalli	761	46
5	Rukingam	727	44
6	Munispentha	637	38
7	Patapur	229	14
8	Bhagirathipur	165	10
Total		4087	247

Ethics Committee Approval: Clearance from the Institutional Ethics Committee (IEC), M.K.C.G. Medical College and Hospital, Berhampur was obtained prior to the beginning of the study with the IEC no-506/chairmain-IEC, M.K.C.G Medical College, Brahampur-4.Permission was sought from CDMO. Informed consent was obtained from all the study participants in verbal form.

Data Collection: In each of the selected villages, Health worker female (HWFs) and Anganwadi worker (AWWs) were contacted. The investigator visited the villages on Wednesday between April 2017- June 2018. In each visit a total of 5 participants were interviewed. The houses of participants were visited with the help of HWFs starting from the first house till the required number of participants was obtained.

After explaining the purpose of study informed consent was obtained from all participants. Interviews to collect data from study population were conducted in the local language (odia). Information was collected regarding socio-demographic profile, obstetric history, personal history, menopause-related problems and health seeking behaviour. A thorough general and systematic examination was done.

Data entry and analysis: Data entry and analysis was done in the Department of Community Medicine, M.K.C.G. Medical College. Data was coded and entered into Microsoft excel and analysis was done using IBM SPSS ver.17.0. Proportions were calculated for categorical variables and compared using chi square test. To know the predictions of health seeking behaviour and socio-demographic characteristics among postmenopausal women logistic regression was done. Appropriate charts and diagrams were obtained where necessary. All analysis was done at a preset alpha error of 5% and results expressed at confidence levels of 95%.

Operational definition:

Age at menopause:⁷ Premature menopause- if attained menopause ≤40 yrs, Early menopause- <45 yrs, normal – 45-55yrs, and late menopause- if attained >55years.

Results

The mean age of the respondents was 52.20±4.377 years with the minimum age being 43 years and maximum 64 years. It was found that 82.2% of post menopausal women were Hindus and 13.8% were Muslims.

Table 2(a): Association between Socio-economic status and age at menopause

Variables	Age at menopause			Total	Chi-square (P-Value)
	Early (<45yrs)	Normal (45-55yrs)	Delayed (>55yrs)		
Socio Economic Status					
Upper	0 (0%)	1 (50%)	1 (50%)	2 (100%)	X ² = 17.835 P=0.022*
Upper- middle	2 (18.2%)	6 (54.5%)	3 (27.3%)	11 (100%)	
Middle	14 (32.6%)	24 (55.8%)	5 (11.6%)	43 (100%)	
Lower-middle	48 (41.7%)	60 (52.2%)	7 (6.1%)	115 (100%)	
Lower	38 (50%)	35 (46.1%)	3 (3.9%)	76 (100%)	
Total	102 (41.3%)	126 (51%)	19 (7.7%)	247	

Table2(b): Association between various factors and age at menopause

Variables	Age at menopause			Total	Chi-square (P-Value)
	Early (<45yrs)	Normal (45-55yrs)	Delayed (>55yrs)		
Marital status					
Married	44 (31.7%)	81 (58.3%)	14 (10.1%)	139 (100%)	X ² = 15.344 P= 0.018*
Widow/	50 (51.5%)	42 (43.3%)	5 (5.2%)	97 (100%)	
Unmarried	3 (60%)	2 (40%)	0 (0%)	5 (100%)	
Separated /divorced	5 (83.3%)	1 (16.7%)	0 (0%)	6 (100%)	
Total	102 (41.3%)	126 (51%)	19 (7.7%)	247	
Contraception usage					
User	56 (48.3%)	46 (39.7%)	14 (12.1%)	116 (100%)	X ² = 13.557 P= 0.001*
Non-users	46 (35.1%)	80 (61.1%)	5 (3.8%)	131 (100%)	
Total	102 (41.3%)	126 (51%)	19 (7.7%)	247	

Table 2(c): Association between Reproductive factors and age at menopause

Variables	Age at menopause			Total	Chi-square (P-Value)
	Early (<45yrs)	Normal (45-55yrs)	Delayed (>55yrs)		
Age at menarche					
11-13	66 (59.5%)	42 (37.8%)	3 (2.7%)	111 (100%)	X ² = 31.456 P= <0.001**
14-16	35 (27.6%)	78 (61.4%)	14 (11%)	127 (100%)	
>16	1 (11.1%)	6 (66.7%)	2 (22.2%)	9 (100%)	
Total	102 (41.3%)	126 (51%)	19 (7.7%)	247	
Parity					
0	7 (77.8%)	2 (22.2%)	0 (0%)	9 (100%)	X ² = 10.304 P= 0.036*
1-2	32 (51.6%)	27 (43.5%)	3 (4.8%)	62(100%)	
>3	63 (35.8%)	97 (55.1%)	16 (9.1%)	176 (100%)	
Total	102 (41.3%)	126 (51%)	19 (7.7%)	247	

Table 3(a): Association between Family and personal factors with age at menopause

Variables	Age at menopause			Total	Chi-square (P-Value)
	Early (<45yrs)	Normal (45-55yrs)	Delayed (>55yrs)		
Addiction status					
Tobacco user	75 (55.6%)	60 (44.4%)	0 (0%)	135 (100%)	X ² = 40.080 P =0.001*
Non -user	27 (24.1%)	66 (58.9%)	19 (17%)	112 (100%)	
Total	102 (41.3%)	126 (51%)	19 (7.7%)	247	
Family history					
Suggestive	28 (87.5%)	4(12.5%)	0(0%)	32(100%	X ² = 35.522 P=0.001*
Not suggestive	74 (34.4%)	122(56.7%)	19 (8.8%)	215(100%	
Total	102(41.3%)	126 (51%)	19(7.7%)	247	

Table 3(b): Association between BMI and age at menopause

Variables	Age at menopause			Total	Chi-square (P-Value)
	Early (<45yrs)	Normal (45-55yrs)	Delayed (>55yrs)		
BMI					
Underweight	45 (86.5%)	6 (11.5%)	1 (1.9%)	52 (100%)	X ² = 61.476 P <0.001*
Normal	34 (38.2%)	49 (55.1%)	6 (6.7%)	89 (100%)	
Overweight/obese	23 (21.7%)	71 (67%)	12 (11.3%)	106 (100%)	
Total	102 (41.3%)	126 (51%)	19 (7.7%)	247	

Table 4: Logistic regression analysis between socio-demographic characteristics and health seeking behaviour

Factors	COR (95%CI)	P-value	AOR (95%CI)	P-value
Age of study population				
>52years	2.478 (1.470-4.174)	0.001**	3.030 (1.639-5.602)	0.000**
≤52years	Reference (1)		Reference (1)	
Educational status of study population				
Literate	3.851 (1.992-7.446)	0.000**	11.798(4.002-34.777)	0.000**
Illiterate	Reference (1)		Reference (1)	
Occupation of study population				
Working women	0.961 (0.559-1.651)	0.884	3.913 (1.296-11.82)	0.016**
Home maker	Reference (1)		Reference (1)	
Socio-economic status				
Upper	0.687 (0.223-2.122)	0.514	3.390 (0.797-14.41)	0.098
Middle	1.661(0.826-3.341)	0.155	(1.997(0.692-5.5759)	0.201
Lower	Reference(1)		Reference (1)	

The number of postmenopausal women in general category was 183(74.1%) and women in SC and ST category were 14.6% and 9.7% respectively. Nearly 79.4% of the post menopausal were illiterate and only 1.2% had studied upto higher secondary and above. 58.7% of the spouse were illiterate & only 0.4% had studied upto higher secondary and above . Majority of post menopausal women i.e. 68.4% were home makers ,Nearly 77.4% of the study population belonged to lower socioeconomic status ie lower and lower middle class taken together, 17.4% belonged to middle class and remaining 5.3% to upper class and upper middle class combined. The socio-economic classification was done according to modified B. G. Prasad scale. It was seen in the present study that , 39.3% of the study population attained menopause at the age 46-50 years and 11.7% at the age 51-55years. Early menopause i.e before the age of 45 years was attained by 41.3% of the respondents and 7.7% attained after 56 years with mean age of menopause being 46.98±4.080years.

In the present study, it was found that women belonging to lower class (50%) had attained menopause earlier at an age i.e less than 45 years compared to the women of middle and upper class , however women of upper-middle class i.e 27.3% attained menopause at a delayed age of more than 55years and this association was found to be significant with P value=0.022. Attainment of early menopause was seen in 83.3% of women who were separated/divorced followed by 60% in unmarried women; however those women who were married or widowed attained menopause at an age of 45-55 years which is the normal range. Contraceptives users attained menopause at an early age than non-users. Marital status (P=0.018), and contraception user (P=0.001) were found to have statistical significant association with the age at menopause in the present study. The proportion of women attaining early menopause was more (59.5%) among those who had early menarche compared to those who had menarche after the age

of 14 years. Women who had more than 3 children (9.1%) attained their menopause at a later age compared to women who had no children. Factors like age at menarche ($P < 0.001$), and parity ($P = 0.036$) were found to be statistically significant in the present study. Out of 135 women who were tobacco users, 55.6% of women attained early menopause. In 87.5% of the women with early menopause, there was a family history of early menopause. The association between addiction status and family history of early menopause and age at menopause were found to be highly significant with P value = 0.001. In the present study percentage of underweight women who attained early menopause was more i.e. 86.5% compared to overweight and obese women. However those women who were overweight/obese (11.3%) attained menopause at later age i.e. after 55 year of age. The association between BMI and age at menopause was found to be statistically significant with $P < 0.001$ in the present study. Majority, i.e. 88.3% of postmenopausal women perceived that menopause occurred due to normal process of ageing. Health care for the morbidities or symptoms were sought by 42.9% and 47.2% of study participants took over the counter treatment for symptoms/morbidities, 35.8% in government hospital. Postmenopausal women who did not seek treatment among them 81.6% thought that all symptoms were occurring due to normal process of aging, 6.4% thought it was not important, rest 12% did not seek treatment due to shyness, time constraints and due to mildness of symptom respectively.

With increasing age, health seeking behaviour among women showed a decreasing trend. This association between age of the study population and health seeking behaviour was statistically significant. And also the association between education and health seeking behaviour was found to be significant with $P = 0.001$. On logistic regression by adjusting all the variables it was found that age of study population [AOR=3.030 (1.639-5.602), educational qualification [AOR=11.798 (4.002-34.777)], and occupation [AOR= 3.913 (1.296-11.82)] were found to be significantly associated with the health seeking behaviour.

Discussion

Menopause is a normal physiological state in a woman's life. It is not a disease process which needs any treatment during the postmenopausal years. The study conducted by Singh et al found out that the maximum number of postmenopausal women were in the age group 50-54 years.⁸ But in a study conducted by Geeta et al found out that majority (61%) of the study participants were in age group of 45-50 years followed by 39% in age group of 51-55 years.⁹

In the present study, 39.3% of the study population attained menopause at the age 46-50 years and 11.7% at the age 51-55 years. Similar finding was observed in study by Sushila T et al where the mean age at menopause was 47.1 years (SD ± 3.84 , range 30-56). In another study conducted by Goyal et al regarding the age at which menopause was attained among postmenopausal women in Allahabad, it was found that majority of the women i.e. 64.0% attained it at the age group of 51-55 years, followed by 25.0% in the age group of 46-50 years.^{10,11}

It was found in the present study that those who were belonging to low socio-economic status attained early menopause which was similar to the finding of a study being conducted by Mahajan et al who observed that there was a positive correlation between better socioeconomic factors with the age at menopause and it was also found that increase of one year of age could be attributed to improvement in socioeconomic status of women of the region over the period of 20 years, which has been reported by other authors as well.^{12,13} Socio-economic status incurs a cascade of events that influence the modulation of the depletion of ovarian follicles. The perception of an excellent state of health during childhood promotes a late menopause. However poor health promotes a early menopause it may be due to stress which acts on hormone regulation which will influence the rate of decline of ovarian follicles.

Marital status ($P = 0.018$), and contraception user ($P = 0.001$) were found to have statistical significant association with the age at menopause in the present study. In a study by Ahuja et al. it was observed that unmarried women were found to undergo early menopause as compared to married or widowed. Another study by Sievert LL et al. had noted that married and widowed women report a later mean age at natural menopause compared to single and divorced women which was found to be significant ($P < 0.05$). However Vries et al reported delayed menopause in contraceptive users and the reason given by them was follicular depletion due to suppression of FSH concentration.^{14,15,16}

The proportion of women attaining early menopause was more (59.5%) among those who had early menarche compared to those who had menarche after the age of 14 years because early onset of menarche causes the depletion of ovarian follicles. Women who had more than 3 children (9.1%) attained their menopause at a later age compared to women who had no children, as they had attained menopause early and this may be due to the on-going activity of the ovaries with a depletion of ovarian follicles. Factors like age at menarche .

In a study by Dasgupta et al. it was seen that the variables such as age at menarche and parity could independently predict the age at menopause. In another study conducted by Busari et al it was observed that early menarche had the highest contribution to the onset of early menopause among postmenopausal women which was similar to the finding of present study.^{17,18}

The association between addiction status and family history of early menopause and age at menopause were found to be highly significant with P value=0.001. Bishnu P et al. had observed that menopause was reported about 2 years earlier in tobacco users i.e. at 42.5 years of age as compared to non tobacco users and the use of tobacco was reported to be the most significant factor influencing the age at menopause. The effect may be dose related and destruction of the ovarian follicles is one of the mechanisms postulated for this effect.^{19,20,21}

Cramer et al. reported that there was a statistically significant relation between age at menopause of a woman and age at menopause of her sister. When a woman gets menopause at early age, her sister will be more prone to have early menopause as well, and the vice versa it may be due to a genetic factor which is also plausible including partial deletions of the X chromosome compatible with the deficiency of male siblings in cases with family history of early menopause.²²

The association between BMI and age at menopause was found to be statistically significant with $P < 0.001$ in the present study. In a study by Akahoshi et al it was reported that, the greater the BMI the more likely to have menopause at a later age.²³ It may be due to hormonal imbalances which have occurred as a result of weight change across the life course which increase the rate of follicular atresia .Hence, it may be weight change rather than weight per se that influences age at menopause.

It was found in our study that age of study population [AOR=3.030 (1.639-5.602)], educational qualification [AOR=11.798 (4.002-34.777)], and occupation [AOR= 3.913 (1.296-11.82)] were found to be significantly associated with the health seeking behaviour. In a study conducted in Delhi by Ahlawat et al., it was found that after adjusting for educational status, women in the age group of 41- 45 years had a higher odds of seeking treatment as compared to women of higher age group. After adjusting for age the odds of literate women seeking treatment was five times [OR: 5.89 (CI-3.3 -10.3)] higher than illiterate women.²⁴

Conclusion

Factors like socioeconomic status, age at menarche, parity, marital status, addiction status, family history of early menopause, BMI and contraception user were found to have statistical significant association with the age at menopause. Majority of postmenopausal women perceived that menopause occurred due to normal process of ageing. But less than half of the respondents sought treatment because of lack of knowledge about the symptoms and availability of treatment modalities.

Recommendation

Proper and timely intervention among post-menopausal women will help to reduce the symptoms and lead a better quality of life. Efforts are needed to educate women by health workers or women organization to make them aware about various menopausal symptoms and clear their doubts & fears. This will enable them to recognize these symptoms early seek timely medical intervention for the same and improve the quality of life. Mass media should be used to create awareness regarding physical, nutritional, psychosocial and emotional needs of post-menopausal women.

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