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A STUDY OF QUALITY OF LIFE AMONG PERI-MENOPAUSAL WOMEN IN A RURAL FIELD PRACTICE AREA OF A MEDICAL COLLEGE IN KARNATAKA

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ABSTRACT

Context: Women in peri-menopausal age group experience physiological changes, when they reach midlife. During this transition from pre-menopause to menopause, they may experience changes which may affect their quality of life. The study was conducted to assess the quality of life among the peri-menopausal women.

Methodology: This Community based cross-sectional study was carried out among 214 peri-menopausal women (40 to 60 years) during April- May 2014, in the rural field practice area of a Medical college in Davangere, Karnataka. A pre designed, pretested questionnaire based on Menopausal Specific Quality of Life (MENQOL) was used to collect information on Quality of Life.

Statistical analysis used: The data was analysed using epi info 7. A Comparison was made between mean QOL score of each domain for premenopausal and post-menopausal women using Wilcoxon Mann Whitney test.

Results: The mean age of study participants was found to be 51.01± 5.9 years. The mean age at menopause was 44.06±3.065 years. Physical symptoms (98.6%) like aching in muscles or joints, decrease in physical strength were the predominant symptoms experienced by peri-menopausal women.

Conclusions: The quality of life of postmenopausal women was poor when compared to pre-menopausal women.

Keywords: MENQOL, Peri-menopausal women, Quality of life.

INTRODUCTION

Natural menopause is defined as the permanent cessation of menstruation resulting from the loss of ovarian follicular activity [1]. Worldwide, the age at which natural menopause occurs is between 45 and 55 years [2].Women in peri-menopausal age group experience physiological changes, which takes place comprehensively in all women when they reach midlife[1]. The term quality-of-life in menopause women often refers to the climacteric symptoms of flushing, night sweats and vaginal dryness which affect facets like personal health, self-satisfaction, and mental function[1]. The present study makes an attempt to assess the quality of life among rural peri-menopausal women.

The aim of this study was to assess the quality of life among peri-menopausal women

SUBJECTS AND METHODS

A community based cross sectional study was carried out in the rural field practice area of a medical college in Davangere, Karnataka for a period of two months from 1-5-2014 to 30-6- 2014. Ethical clearance was obtained from institutional ethical committee. Before the study was started an area mapping was carried out to find the number of women in the age group of 40-60 years. There were 463 women in this age group. Women who attained menopause other than natural menopause

such as women who had undergone hysterectomy and women who were on hormonal therapy were excluded from the study. Women with diabetes, hypertension and cardiovascular disease were also excluded from the study. And finally a total of 214 women belonging to the age group 40 to 60 years who were willing to participate in the study were included.

Data was collected using pre designed and pre tested questionnaire. In order to collect data on quality-of-life, we used MENQOL[3] questionnaire containing a total of 29 questions under the four domains of vasomotor, psychosocial, physical and sexual. Using Likert scoring method, each question under the domain was scored by 6 points

1 point : subject had no problem.
2 points: subject had a problem causing mild distress.
3 points: subject had a problem resulting into moderate distress.
4 points: subject had a problem that causes relatively severe distress.
5 points: subject had a problem causing severe distress, and
6 points: subject had a problem causing very severe distress.

The mean score was taken for each domain. The questionnaire was translated in the regional language kannada and it was face validated by experts in obstetrics and gynaecology. An informed consent was obtained from participants after explaining the purpose of the study. Data was also obtained regarding socio demographic details of the study participants.

After collecting, the data was entered in Microsoft excel and analysed using epi info 7. All the demographic details were reported as frequencies and percentages. QOL score for each domain was represented as mean standard deviation. A Comparison was made between mean scores of premenopausal and post-menopausal women using Wilcoxon Mann Whitney test. A P value of less than 0.05 was taken as significant.

RESULTS

The mean age of the study participants was found to be 51.01± 5.9 years. The mean age at menopause was 44.06±3.065 years. Majority of the participants were married (97.66%), 93.92% of women were homemakers and 50.93% women were literate. About 34.57% of women belonged to lower socio economic class according to modified B.G.Prasad classification. About 59.34% of the study participants were obese (BMI more than 25kg/m^2). With respect to peri-menopausal status 17.28% women were premenopausal and 82.71% were post-menopausal.

As seen in Table 1, majority of the peri-menopausal women experienced symptoms in the physical domain (98.6%), followed by psychosocial (78%) and vasomotor domain (66.8%).

Table 1: Comparison of the four domains

Domain	Frequency (n) (%)
Vasomotor	143 (66.8)
Psychosocial	167 (78)
Physical	211 (98.6)
Sexual	36 (16.8)

Table 2: Menopausal specific quality of life questionnaire

Domain & Symptoms	No (%) (n=215)
Vasomotor Domain	
Hot flushes or flashes	67(31.16)
Night sweats	97(45.11)
Sweating	140(65.11)
Psychosocial	
Being dissatisfied with my personal life	79(36.74)
Feeling anxious or nervous	82(38.13)
Experiencing poor memory	63(29.30)
Accomplishing less than I used to	104(43.37)
Feeling depressed down or blue	53(24.65)
Being impatient with other people	85(39.53)
Feeling of wanting to be alone	50(23.25)
Physical	
Flatulence (winds) or gas pains	74(34.41)
Aching in muscle or joints	152(70.69)
Feeling tired of wormed out	153(71.16)
Difficult in sleeping	117(54.41)
Aches in back of neck or head	148(68.83)
Decrease in physical strength	178(82.79)
Decrease in stamina	178(82.79)
Feeling lack of energy	134(62.32)
Drying skin	73(33.95)
Weight gain	51(23.72)
Increased facial hair	65(30.23)
Changes in appearance, texture, tone of skin	70(32.53)
Feeling bloated	70(32.53)
Low backache	123(57.2)
Frequent urination	54(25.11)
Involuntary urination while coughing or laughing	25(11.62)
Sexual	
Change in your sexual desire	22(10.23)
Vaginal dryness	20(9.3)
Avoiding intimacy	19(8.83)

As Seen in Table 2, the predominant symptom under vasomotor domain was 'sweating' followed by night sweats. In the psychosocial domain accomplishing less than they used to was the predominant symptom. Decrease in the physical strength was more common symptom in physical domain while in the sexual domain, change in sexual desire was more common.

Table 3: Comparison of the quality of life between Premenopausal and Postmenopausal women

Domains	Premenopausal (mean rank)	Post-menopausal (mean rank)	P value
Vasomotor	97.16	109.66	0.25
Psychosocial	85.30	112.14	0.38
Physical	99.59	109.15	0.016
Sexual	102.70	108.50	0.421

Table 4: Comparison of quality of life between literate and illiterate peri menopausal women

Domains	Illiterate(n=109) (Mean rank)	Literate(n=105) (mean rank)	P value
vasomotor	118.61	95.97	0.006
Psychosocial	118.29	96.30	0.090
Physical	114.53	100.20	0.009
Sexual	104.33	110.79	0.236

Table 5: Comparison of quality of life between normal and obese peri menopausal women

Domains	Normal BMI(n=87) (Mean rank)	Obese (n=127) (Mean rank)	P value
Vasomotor	109.48	106.15	0.693
Psychosocial	127.95	93.49	0.000
Physical	139.49	85.58	0.000
Sexual	106.72	108.03	0.814

Table 6: Comparison of quality of life between peri menopausal women belonging to different socioeconomic class

Domains	Upper class(n=140) Mean rank	Lower class(n=74) Mean rank	P value
Vasomotor	99.32	122.97	0.07
Psychosocial	105.44	111.41	0.497
Physical	101.63	118.61	0.056
Sexual	108.96	104.74	0.461

The mean score was taken for each domain and Mann Whitney U test was used to compare the mean score of premenopausal and postmenopausal women. As seen in Table 3 the mean ranks for post menopausal women were high in all the four domains when compared to premenopausal women. This difference was found to be significant for the physical domain (p-value=0.016).

The mean scores of literate and illiterate perimenopausal women under the four domains were compared. Table 4 shows that the illiterate women had a higher mean score than their literate counterparts under the vasomotor, psychosocial and physical domain. This difference was found to be significant for vasomotor and physical domain (P<0.05).

The study participants with the BMI of more than 25 kg/m^2 were considered as obese. The mean scores of study participants with normal BMI were compared with those who were obese. As shown in table 5, women with normal BMI had a higher mean score than obese women under the vasomotor, psychosocial and physical domain. This difference was found to be highly significant for psychosocial and physical domain (P<0.01).

The socio-economic status was assessed using modified B.G.Prasad classification. For the purpose of statistical analysis women belonging to class I, II and III were considered together and those belonging to class IV and class V were considered as lower socioeconomic class.

The mean scores of the two groups were compared under the four domains. The mean scores of lower economic class were higher than the other women under Vasomotor, Psychosocial and physical domains (Table 6). But this difference was statistically not significant (P>0.05).

DISCUSSION

The Present community based cross sectional study was carried out among 214 rural women in the age group of 40-60years. The mean age at menopause was found to be 44.06±3.065 years. Similar results were obtained by Mahajan R et.al[4] and Poomolikar GK et.al[5] in their studies.

However in a studies conducted by Nayak G et.al[6], Randhawa et.al[7] and Tandon RV et.al[8] the mean age at menopause was found to be 48.30±5.30 years, 48.86±2.12 and 49.35 years respectively which is slightly higher than our study.

The difference in the age of onset of menopause in the various studies can be explained on the basis of difference in study settings. The studies by Mahajan R et,al[4] and Poomolikar GK et.al[5] were conducted in the rural area and the mean age at menoupause was found to be earlier when compared to studies by Nayak et,al[6] and Randhawa et.al[7] which were conducted in urban area. This difference may be due to recall bias among the rural women about their age. The mean age of the menopause among the Egyptian women was found to be 46.7 years[9].

Our study found that physical symptoms (98.6%) were the predominant menopausal symptoms experienced by peri-menopausal women followed by psychosocial (78.0%) vasomotor (66.8%), and sexual (16.8%) symptoms respectively. The reporting of symptoms under the sexual domain is comparatively less when compared to other three domains. Similar findings have been made in other studies like Nayak G et.al [6]. This may due to cultural taboos and hesitancy on part of the women to discuss about their sexual problems leading to low reporting of symptoms.

Similar observations were made by Poomolikar GK et.al [5] and Bansal R et.al [10], whereas studies carried out by Tandon RV et.al [8] and Mahajan R et.al [4] observed that physical and vasomotor symptoms were more predominant.

Physical symptoms (98.6%) like aching in muscles or joints, decrease in physical strength was the predominant symptoms experienced by peri-menopausal women, and this was followed by psychosocial symptoms. Since the factors like poverty influencing more on rural Indian women we found higher psychosocial symptoms in our study when compared to other European women where the women have more vasomotor symptoms. A Study carried out in Saudi Arabia showed that hot flashes and sweating (68.5%), vaginal drynes (37.3%) and sexual problems (30.7%) were the most common symptoms among menopausal women[11]. Another study carried out in Saudi Arabia by Al-Dughaither A et al reported that vasomotor symptoms were less commonly observed than in the western women. The possible reason for this difference was the extremely hot local climate which reduces women's sensitivity to elevated temperatures, or alternatively, women may attribute the warming sensation of hot flushes to ambient weather[12]. Hence the timing of menopause as well as the menopausal symptoms experienced by women varies between population and within population probably due to the influence of racial, climatic and cultural factors.

The mean ranks for post menopausal women were high in all the four domains when compared to premenopausal women. This difference was found to be significant for the physical domain (p-value=0.016). Similarly results were obtained from other studies such as Nayak G et.al [6], Poomolikar GK et.al [7], Bansal R etal [10].

Present study showed that illiterate study subjects have more symptoms when compared to literate and that difference is more significant with respect to vasomotor and physical domain. Similar results were reported by Elsabagh EEM and Abdallah ES in their study carried out in Egypt. They found that more than one third of the illiterate women had poor quality of life compared to literate women who had good quality of life[13]. This may be to lack of awareness among illiterate women with regard to health seeking behaviour. But contrary to our study Madhukumar S et.al [14] stated that the menopausal symptoms were more in the literate compared to illiterate study participants and that difference was statistically significant.

Our study showed that obese study participants had less menopausal symptoms when compared to non-obese study participants. This could be due to abdominal fat increasing the circulating estrogen, which in turn reduces the frequency of menopausal symptoms in women. But contrary to our study Moilanen et.al [15] stated that higher the BMI higher will be the menopausal symptoms.

Our study showed menopausal symptoms were higher in low socioeconomic class when compared to upper socioeconomic class. Similarly Poomolikar GK et.al [5] showed higher prevalence of menopausal symptoms except the vasomotor symptoms in low income group. But contrary to our study Madhukumar S et.al [14] showed that symptoms were less common in low socio-economic class, though the finding was not statistically significant.

CONCLUSION

The mean age at menopause was found to be comparatively similar to other studies. The quality of life of postmenopausal women was poor when compared to pre-menopausal women**.** Illiterate, non-obese and low socio-economic class have more prevalence of menopausal symptoms when compared to their counterparts in the other group.

Recommendations: There is a need to create awareness among the peri-menopausal women about the physiology of menopause so that they can improve their quality of life. This awareness should be the earliest as w omen can cope with these symptoms to reduce the severity.

Suitable interventions such as yoga and hormonal therapy can be suggested to improve their quality of life. These interventions can only be made when there is awareness among these women.

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