

Assessment of Symptoms and Quality of Life among Postmenopausal Women in a Tertiary Care Hospital in Kochi, South India: A Hospital-based Descriptive Study

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ABSTRACT

Background: Menopause is a physiological event in the women's life that can strongly affect the quality of life (QOL). More than 80% of women state that physical and physiological symptoms commonly accompany menopause and affect women's health and well-being. **Objective:** The aim of the study was to assess the menopause-related symptoms and their impact on the women's life. **Materials and Methods:** We have done a hospital-based descriptive study at the Outpatient and Inpatient Department of Obstetrics and Gynecology, Amrita Institute of Medical Sciences and Research Centre, Kochi, Kerala, with 150 postmenopausal women. The data were collected using the structured Menopause-specific QOL (MENQOL) questionnaire. The data were collected for 4 weeks from the Outpatient and Inpatient Department of OBG with inclusion criteria of women who were coming as bystanders' age in between 50 and 65 years. **Statistical Analysis:** Mean, standard deviation, frequency, and proportions were calculated. The association between the MENQOL scores and selected demographic variables was found using one-way ANOVA test. **Results:** Among 150 postmenopausal women, 51 (34%) were in the age group of 55–59 years and more than half of the study population ($n = 116, 77.3\%$) were married. The management of menopausal symptoms was followed by 28 (18.7%) women. The prevalence levels of the classical menopausal symptoms such as hot flushes, night sweats, and vaginal dryness in women aged 50–65 years were 75.3%, 58%, and 30.7%, respectively. The overall MENQOL mean total score was found as 112.47 ± 28.80 . The majority of them experienced the mean physical symptom, which was found to be 62.05 ± 17.82 . The associations between QOL scores with educational status and socioeconomic status were statistically highly significant with $P < 0.01$ and with marital status statistically significant with $P < 0.05$. **Conclusion:** From the present study, we have concluded that the postmenopause-related physical symptoms are frequently reported by the middle age group classifications. The association between QOL scores with educational status, socioeconomic status, and marital status was statistically highly significant. By nursing education, creating appropriate awareness and

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health education on the management of postmenopausal symptoms to that age group and it could be reducing the burden of the women population.

KEYWORDS: *Descriptive study, Kerala, menopause-specific quality of life questionnaire, postmenopausal symptoms, postmenopausal women, quality of life*

INTRODUCTION

As per the World Health Organization (WHO) report, menopause is defined as 12 months of amenorrhea in women. More than 25 million women reached menopause worldwide in the 1990 and it would be increase in double by the year 2020 and above years.^[1] Kaulagekar reported that nearly 130 million women were expected to live beyond menopause by 2015.^[2] Menopause is the common physiological change among middle-aged women. Menopausal health demands priority in India due to extension in the life expectancy and growing population of menopausal women.^[3] The transition from the reproductive to the nonreproductive stage is the result of a reduction in the female hormonal production by the ovaries. This transition is normally not sudden or abrupt; it tends to occur over a period of years; it is normally occurring in the aging of women's life and mostly occurring in the developed countries. Postmenopause describes the period following the final menses.

Quality of life (QOL) has been defined by the WHO as "the individual perception of their position in life in the context of the cultural and value systems in which they live and in relation to their goals, expectation, standards and concerns."^[4] Nowadays, it is very nicely understandable today that socio cultural factors can alter women's attitude and the experience of menopausal symptoms. These symptoms are found to be less common in societies nowadays and where the menopause is viewed as positive rather than negative event. The main objectives of our study were to assess the QOL among postmenopausal women, to identify the symptom management followed by the study population, and to find the association between QOL with selected demographic variables.

MATERIALS AND METHODS

Study design

We have conducted a hospital-based descriptive study.

Study setting and study period

Our study was conducted from March 1, 2018, to March 30, 2018, at the Outpatient Department (OPD) and Inpatient Department (IPD) of Obstetrics and Gynecology in Amrita Institute of Medical Sciences and Research Centre (AIMS), Ponekkara, Kochi, Kerala.

Sample size calculation

Based on the previous publication by Borker *et al.*,^[5] the prevalence of menopausal symptoms was 80% with 10% allowable error (d) and using the formula, sample size (n) = $4pq/d^2$. The calculated sample size was 100. However, in the present study, we have included 150 postmenopausal women with age of 50 years and above.

Sampling technique

The sample was selected using simple random sampling method.

Study population

The target population of this study was postmenopausal women those who were having >1 year of amenorrhea and those who are the residence of Kerala state.

Study tool and data collection instruments

We have collected the data using a two-part questionnaire. In Part I, sociodemographic information were collected by face-to-face interview method using a structured questionnaire, and in Part II, the postmenopausal symptoms were collected by a standard validated menopause-specific QOL (MENQOL) questionnaire.^[6,7] MENQOL questionnaire consists of 29 items related to postmenopausal symptoms with a 6-point Likert scale format, and it consists of four domains such as vasomotor symptoms – 3 items, psychosocial symptoms – 7 items, physical symptoms – 16 items, and sexual symptoms – 3 items as shown in Table 1. Items about a specific symptom are rated as present or not present and if present how bothersome on a 0–6 scale. The scores of four menopausal domains constituted a composite (total) score of QOL of postmenopausal women. The family monthly income was listed and classified by Modified Prasad's socioeconomic status and that scale was updated by Singh *et al.*^[8]

Definitions of terms

Quality of life

QOL has been defined as the individual perceptions of their position in life in the context of the cultural and value systems, in which they live and in relation to their goals, expectation, standards, and concerns.

Menopause

Menopause means permanent cessation of menstruation at the end of reproductive life due to loss of ovarian follicular activity. It is calculated from the time when last and final menstruation occurs.

Table 1: Distribution of frequency and percentage of symptoms among postmenopausal women (n=150)

Questions	Response	n (%)
Hot flushes or flashes	No	37 (24.7)
	Yes	113 (75.3)
Night sweats	No	63 (42.0)
	Yes	87 (58.0)
Sweating	No	49 (32.7)
	Yes	101 (67.3)
Dissatisfaction with my personal life	No	49 (32.7)
	Yes	101 (67.3)
Feeling anxious or nervous	No	28 (18.7)
	Yes	122 (81.3)
Poor memory	No	46 (30.7)
	Yes	104 (69.3)
Accomplishing less than I used to	No	32 (21.3)
	Yes	118 (78.7)
Feeling depressed, down or blue	No	31 (20.7)
	Yes	119 (79.3)
Being impatient with other people	No	70 (46.7)
	Yes	80 (53.3)
Feelings of wanting to be alone	No	91 (60.7)
	Yes	59 (39.3)
Passing gas or gas pains	No	58 (38.7)
	Yes	92 (61.3)
Aching in muscles and joints	No	14 (9.3)
	Yes	136 (90.7)
Feeling tired or worn out	No	20 (13.3)
	Yes	130 (86.7)
Difficulty sleeping	No	46 (30.7)
	Yes	104 (69.3)
Aches in back of neck or head	No	74 (49.3)
	Yes	76 (50.7)
Decrease in physical strength	No	19 (12.7)
	Yes	131 (87.3)
Decrease in stamina (energy to keep going)	No	26 (17.3)
	Yes	124 (82.7)
Lack of energy	No	24 (16.0)
	Yes	126 (84.0)
Dry skin	No	90 (60.0)
	Yes	60 (40.0)
Weight gain	No	69 (46.0)
	Yes	81 (54.0)
Increased facial hair	No	137 (91.3)
	Yes	13 (8.7)
Changes in appearance, texture or tone of my skin	No	90 (60.0)
	Yes	60 (40.0)
Feeling bloated	No	76 (50.7)
	Yes	74 (49.3)
Low backache	No	30 (20.0)
	Yes	120 (80.0)
Frequent urination	No	60 (40.0)
	Yes	90 (60.0)
Involuntary urination when laughing or coughing	No	78 (52.0)
	Yes	72 (48.0)

Contd...

Table 1: Contd...

Questions	Response	n (%)
Decrease in my sexual desire	No	2 (1.3)
	Yes	148 (98.7)
Vaginal dryness	No	104 (69.3)
	Yes	46 (30.7)
Avoiding intimacy	No	4 (2.7)
	Yes	146 (97.3)

Postmenopause

Post-menopause means the span of time experienced by a woman without menstruation.^[9] It is the stage of life in the women population that comes after the menopause.

Plan for data collection

The data were collected for 4 weeks from OPD and IPD of OBG.

Inclusion criteria

Women those who are coming as bystanders with the patients to the OBG department in the age group of 50–65 years, from OPD and IPD, and those who were willing to participate were included in the study.

Exclusion criteria

Women below the recommended age group, women who were refused to participate in the study, and women who have any medical and psychiatric disorders were excluded from the study.

Software used

The collected data were entered into a Microsoft Excel 2010 (Office 365, Microsoft Company Ltd., USA) and were analyzed using statistical software SPSS 20.0 version (IBM SPSS software, USA).

Statistical analysis

Quantitative variables were expressed as descriptive statistics such as mean \pm standard deviation. Categorical data were expressed as numbers and proportions. The percentage and distribution of menopausal symptoms and assessing were calculated. The statistical association between the MENQOL score and selected demographic variables by using one-way ANOVA test. The statistical significance was fixed in the present study as $P < 0.05$.

Ethical considerations

Scientific and ethical approval was taken from the Institutional Ethics Committee, Amrita Institute of Medical Sciences and Research Centre, Ponekkara, Kochi, Kerala, before conducting the present study. We explained about our study and its importance to the participants in vernacular language, Malayalam and English. Anonymity and confidentiality were ensured throughout the study.

RESULTS

In the present study, we included 150 postmenopausal women aged 50–65 years. The data were collected through a face-to-face interview with all the participants used by standard MENQOL questionnaire. Hence, the response rate was 100%. In that, 51 (34%) women were in the age group of 55–59 years, followed by 45 (30%) in 60–64 years and 14 (9.3%) in 65 years. Among 150 women, nearly one-third ($n = 69$, 46%) of women were primary education and 59 (39.3%) were high school and very few ($n = 6$, 4%) were higher secondary school and 16 (10.7%) were graduates. Of 150 women, most of them ($n = 127$, 84.7%) were homemakers, followed by 16 (10.7%) private employees, 5 (3.3%) government employees, and very few ($n = 2$, 1.3%) retired persons. Most of them ($n = 63$, 42.0%) were under the socioeconomic of lower middle class (Grade III), equal number of women ($n = 34$, 22.7%) were in the upper middle class and upper lower class (Grade II and Grade IV), 11 (7.3%) women were in upper class (Grade I), and very few number of 8 (5.3%) women were in the lower economic class (Grade V). More than three fourth of the study population ($n = 116$, 77.3%) were married, followed by widow ($n = 32$, 21.3%) and very less study participants were unmarried ($n = 2$, 1.3%) as shown in Table 2.

We have found that the prevalence levels of the classical menopausal symptoms such as hot flushes, night sweats, and vaginal dryness in women aged 50–65 years were 75.3%, 58.0%, and 30.7%, respectively. The response by the menopausal women for the “decreasing in sexual desire” was 148 (98.7%), “avoiding intimacy” 146 (97.3%), and “feeling anxious or nervous” 122 (81.3%), followed by “aching in muscles and joints” in 136 (90.7%) as shown in Table 1. The present study findings revealed that the less number of postmenopausal women ($n = 28$, 18.7%) were followed the symptom management and 122 (81.3%) were not followed any type of symptom management. The association between educational status and symptom management did not show any statistical significance with Chi-square value = 1.671 and $P = 0.643$ (i.e., $P > 0.05$), and the association between socioeconomic status and symptom management also did not show any statistical significance with Chi-square value = 4.228 and $P = 0.376$ (i.e., $P > 0.05$).

The majority of them experienced the mean score physical symptoms was found as 62.05 ± 17.82 (range: 21–107), mean score psychosocial symptoms was 31.01 ± 9.59 (range: 7–51), mean score vasomotor symptoms was 12.59 ± 6.58 (range: 3–24) and the mean score sexual symptoms was found as 6.82 ± 1.91 (range:

3–12). The vasomotor and sexual domains were less frequently complained when compared to physical and psychological domains. Among the four domains, the physical domain has the maximum mean score. The overall MENQOL mean total score was found as 112.47 ± 28.80 as shown in the Figure 1. The association between QOL scores with the selected demographic variables in the study population showed a statistically very highly significant association found

Table 2: Distribution of socioeconomic characteristics, association between quality of life, and socioeconomic characteristics among postmenopausal women ($n=150$)

Socioeconomic characteristics	Number of women (%)	$P^{\#}$
Age groups (years)		
50-54	40 (26.7)	0.246 [^]
55-59	51 (34.0)	
60-64	45 (30.0)	
At the age of 65	14 (9.3)	
Educational status		
Primary school	69 (46.0)	0.001**
High school	59 (39.3)	
Higher secondary	6 (4.0)	
Graduates	16 (10.7)	
Occupational status		
Government employee	5 (3.3)	0.073 [^]
Private employee	16 (10.7)	
House wife	127 (84.7)	
Retired person	2 (1.3)	
Socioeconomic status		
Upper class (I)	11 (7.3)	0.007**
Upper middle (II)	34 (22.7)	
Lower middle class (III)	63 (42.0)	
Upper lower class (IV)	34 (22.7)	
Lower class (V)	8 (5.3)	
Marital status		
Married	116 (77.3)	0.027*
Unmarried	2 (1.3)	
Widow	32 (21.3)	

[#]One-way ANOVA P value; * $P < 0.05$ statistically significant;

** $P < 0.01$ statistically very highly significant; [^] $P > 0.05$ statistically not significant

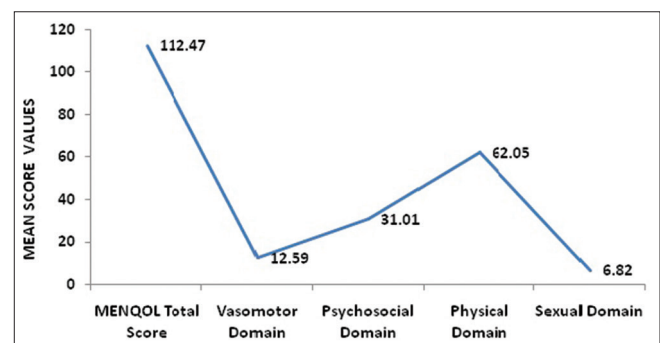


Figure 1: Distribution of the mean values of menopausal specific quality of life total score and other various domains

with educational status with $P = 0.001$ ($P < 0.01$) and socioeconomic status was highly significant with $P = 0.007$ ($P < 0.01$) level and marital status was showed statistically significant with $P = 0.027$ ($P < 0.05$). Age groups and occupational status did not show statistical significance with $P > 0.05$ as shown in Table 2.

DISCUSSION

Menopausal is a natural part of every woman's life. Many women respond differently to the menopausal symptoms. In general, 70%–80% of postmenopausal women have reported that they are having vasomotor and psychological symptoms. In a study, the researcher had stated that menopause is not considered as a disease and postmenopausal women can be considered as a risk population. The Indian Menopause Society is located in New Delhi reports that there are currently 65 million women over the menopausal age in India affected with menopausal symptoms. Aging is one of the stages in women from that no one can escape. Some of the women were having the symptoms of postmenopausal period. The mean postmenopausal age of the UK women was mentioned as 51 years.^[9] In our study, we have used a standard validated questionnaire MENQOL for finding the symptoms and QOL of postmenopausal women and completed it successfully. MENQOL questionnaire was used in the year of 1996, and it has four domains such as vasomotor domain, psychological domain, physical domain, and sexual domain. MENQOL questionnaire has been applied in some studies in country like Europe.^[10] Menopausal symptom-related studies were conducted in China and in some other developing countries also.^[11,12]

In the present study, we have considered and studied 29 symptoms and the QOL of postmenopausal women. From this study, we have found that there was no statistically significant difference between age and occupational status with MENQOL total score. Bairy *et al.*^[13] have mentioned that the menopausal symptoms of muscle and joints pain, feeling tired, lower backache, poor memories, and difficulty in sleeping were reported frequently in their MENQOL questionnaire used in that study. However, we have found that those symptoms were reported less frequently in our study population.

From the present study, we have found that the number of menopausal symptoms was much higher than those which were found in many other studies in other countries like China and other Asian Countries.^[14-16] In the present study, we have found that nearly 50% of the women were mentioned as “weight gain” at their time of postmenopause. Whereas, a case study done by Bagga revealed that more than half of the study population were responded as weight gain.^[17] A study conducted

on Asian women population by Haines *et al.* reported that the “body or joint aches” was the most prominent symptom, which was ranged from 76% in the Korean women population and a maximum of 96% in the Vietnamese women population.^[18] Whereas, in our study, we have found that 90.7% of the women were responded as “muscles and joint aches.” In another one study by Lu *et al.* have revealed that out of 29 symptoms, most of the women were responded as “aching in muscles and joints”^[19] similar type of results we have got in our present study.

In the present study, we have found that 75.3% of women had the symptom of “hot flushes or flashes.” Whereas, a study conducted in Australia by Lu *et al.* reported that a hot flush was observed in 63% of women.^[19] Similarly, another one study from Holland by Groeneveld *et al.* had also reported the same.^[20] Moreover, we have found that higher responses for “decreasing in sexual desire,” “avoiding intimacy,” and “feeling anxious or nervous” symptoms were among postmenopausal women. In a study, Bener *et al.* reported that the proportion of women reported in the physical symptoms, psychosocial symptoms, vasomotor symptoms, and sexual symptoms were 69%, 58.7%, 40%, and 37.9%, respectively.^[21] In our study also, we obtained the similar type of results from high to low mean scores in the various domains, i.e. the mean score of physical domain, psychosocial domain, vasomotor domain, and sexual domain were 62.05, 31.01, 12.59, and 6.82, respectively.

CONCLUSION

From the present study, we have concluded that the postmenopause-related physical symptoms are frequently reported by the middle old age group classifications. The association between QOL scores with educational status, socioeconomic status, and marital status showed statistically highly significant. By nursing education, creating appropriate awareness and health education on the management of postmenopausal symptoms to that age group and it could be reducing the burden of the women population.

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Nil.

Conflicts of interest

There are no conflicts of interest.

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