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Original Research Article

Quality of Life of Post Menopausal Women in Rural Andhra Pradesh: A Cross Sectional Study

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Abstract

Introduction: Quality of Life' has been defined by World Health Organization (WHO) 1as individuals' perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns. Menopause occurs because of a decline in the production of ovarian hormones, estrogen and progesterone. This leads to many physiological and psychological effects/ symptoms. These symptoms can significantly disrupt a woman's daily activities and her sense of well-being. Menopausal health condition of women has become public health concern; it is observed that menopausal symptoms and socio demographic factors affect their quality of life.

Aims and Objectives: (1) To assess the Quality of life (QOL) among post-menopausal women in rural community. (2) To determine the association between socio-demographic factors and poor quality of life among them.

Material and Methods: This cross-sectional study was conducted among 270 participants in villages of Kuppam Mandal, Chittoor District, Andhra Pradesh during the period February 2017 to January 2018. A semi-structured questionnaire was used to record the socio-demographic factors of the study participants and WHOQOL-BREF16 instrument was used in this study to assess the QOL of post-menopausal women. The data were entered into MS Excel 2010 version and further analyzed using Epi-info version 7.1.

Results: The lowest age among the subjects was 31 years and the highest age was 58 years. The mean age of the subjects was 51.8 ± 4.9 years. We observed 38.5% of the individuals in our study had experienced Poor or Very Poor quality of life. In our study we observed that 41.7% of the individuals more than 50 yrs and above had experienced Very poor and poor quality of life. Among the married women, only 36.0% perceived poor QOL. However, among the Divorced/ Separated/ Widowed women, 50.0% perceived poor QOL. Among the married women, only 36.0% perceived poor QOL. However, among the Divorced/ Separated/ Widowed women, 50.0% perceived poor QOL.

Conclusion: The prevalence of poor quality of life (QOL) among the post-menopausal women was 38.5%. The variables such as nuclear family, illiteracy, non-adoption of family planning method of tubectomy, induced menopause and presence of one or more chronic medical conditions were found to be 'predictors' of poor QOL among them.

Keywords: QOL, Quality of life, post-Menopausal women.

Introduction

Quality of Life' has been defined by World Health Organization (WHO) [1]as individuals' perception of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns. It is a wide ranging concept which is affected in a complex way by the particular person's physical health, psychological state, social relationships, personal beliefs and their relationship to prominent features of their environment [1]. Centers for Disease Control and Prevention (CDC) [2] have declared that HRQOL measurements make it possible to demonstrate scientifically the impact of health on quality of life.

In a woman's life, the menopause is an important event. It is a natural consequence of aging. However, many women perceive the occurrence of menopause as an unpleasant event. Menopause occurs because of a decline in the production of ovarian hormones, estrogen and progesterone. This leads to many physiological and psychological effects/ symptoms. These symptoms can significantly disrupt a woman's daily activities and her sense of well-being [5,6].

At the present time, the menopausal health condition of women has become a public health concern in the world. A population-based study conducted in USA [3] among post-menopausal women has found that the menopausal symptoms as well as socio-demographic characteristics have influenced their quality of life.

Thus, there are many studies conducted in various countries and other parts of India regarding the menopausal women's symptoms and Quality of Life (QOL). Therefore, the present study was undertaken to assess the QOL among post-menopausal women in rural community of Kuppam.

Aims and Objectives

1. To assess the Quality of life (QOL) among post-menopausal women in rural community.
2. To determine the association between socio-demographic factors and poor quality of life among them.

Material and Methods

This cross-sectional study was conducted among 270 participants in villages of Kuppam mandal, Chittoor District, Andhra Pradesh during the period February 2017 to January 2018. The sample size was calculated based on West Bengal study [6] which showed a prevalence of 'poor quality of life' among post-menopausal women as 77%. A design effect of 2 and non-response rate of 10% were included. Thus, we obtained a sample size of 270.

Using cluster sampling method study samples were selected from the study area. A total of 63 villages were there in Kuppam Mandal, each village were considered as a cluster, by simple random sampling method 27 villages were selected, 10 subjects were selected from each villages to attain the sample size. This study included women in post-menopausal state for more than 12 months and less than 10 yrs. Subjects who were not residing in that area for at least one year and people who were not willing to participate were excluded from this study

A semi-structured questionnaire was used to record the socio-demographic factors of the study participants and WHOQOL-BREF instrument was used in this study to assess the QOL of post-menopausal women and a time frame of four weeks was applied, i.e., their QOL was enquired with regard to the preceding four (4) weeks of the interview.

'WHOQOL-BREF' includes a list of 26 items / questions. The first two items are on

"overall" quality of life and general health. The remaining 24 items are incorporated in four different domains, as follows: physical domain (7 items), psychological domain (6 items), social domain (3 items) and environmental domain (8 items).

Each item / question on QOL is based on 5 point Likert scale. For each question, the scores are scaled in a positive manner (i.e. higher score means better QOL). The raw scores of all items in a domain are summed-up, to obtain the domain score. The BREF instrument has also provided the relevant SPSS syntax file which helps to check & recode the data and compute the domain scores.

Then as per the transformation methods given in the instrument, the domain scores are converted to "transformed scores" which are ranging from '0' to '100' for each domain. A higher score in a particular domain represents a better QOL in that domain.

Analysis

The data were entered into MS Excel 2010 version and further analyzed using Epi-info version 7.1. For descriptive statistics, the data were analyzed as follows: Categorical data were analyzed using percentages and the continuous data were analyzed using mean and standard deviation. For inferential statistics, the data were analyzed using Chi-square test. A probability value of <0.05 was considered as statistically significant.

Results

The lowest age among the subjects was 31 years and the highest age was 58 years. The mean age of the subjects was 51.8 ± 4.9 years. Among the study subjects, no one was unmarried. 87.1% of the study participants belong to Hindu religion. In our study we observed 68.2% of them were in nuclear type of family. Only 228.5% of the study participants were literate. Majority 80.4% of the study participants were home makers.

58.5% of the study participants were in Class IV and V socio economic status. 12.2% of the study participants have parity more than 5. Only 35.6% of the study participants have adopted Permanent sterilization. 20% of the study participants attained menopause through induction. 19.6% of the study participants were presented with any one or some chronic medical condition. We observed 38.5% of the individuals in our study had experienced Poor or Very Poor quality of life as shown in Table1.

Table 1: Overall QOL perceived by the subjects, in three categories

Overall Quality of Life (QOL)	Frequency	Percentage (%)
Poor (Very poor & poor combined)	104	38.5
Neither poor nor good	47	17.4
Good (Good & very good combined)	119	44.1
Total	270	100

Socio-demographic factors and other variables influence in overall quality of life. In our study we observed that 41.7% of the individuals more than 50 yrs and above had experienced Very poor and poor quality of life. 59.3% of the study participants in age group less than 45 years had experienced Good and Very good quality of life as shown in Table2, but there is no significant association between age groups and quality of life score. Among the Hindus, 38.7% perceived poor QOL.

Among the Muslims & Christians (combined), 37.1% perceived poor QOL.

This difference was not statistically significant ($p > 0.05$). Among the married women, only 36.0% perceived poor QOL. However, among the Divorced/ Separated/ Widowed women, 50.0% perceived poor QOL. This difference was statistically significant ($p < 0.05$). Among the subjects of nuclear family, 43.0% perceived poor QOL. While among the subjects of Joint family & three generation family, only 29.0% perceived poor QOL. This difference was statistically significant ($p < 0.05$). Among the illiterate subjects, 43.5% perceived poor QOL, while among the literate women, 26.0% only perceived poor QOL. This difference was statistically significant ($p < 0.05$ Among the married women, only 36.0% perceived poor QOL. However, among the Divorced/ Separated/ Widowed women, 50.0% perceived poor QOL.

This difference was statistically significant ($p< 0.05$). Among the subjects who attained natural menopause, only 35.2% perceived poor QOL, while among those women with induced menopause, 51.8% perceived poor QOL. This difference was statistically significant ($p < 0.05$). Among the post-menopausal women who had any one or more chronic medical conditions, 54.7% perceived poor QOL. Among the subjects who did not have any other chronic medical condition, only 34.6% perceived poor QOL. This difference was statistically significant ($p < 0.05$) as shown in Table 2.

Table 2: Various Factors influence Overall quality of life.

Variables		Quality of Life			Total	X^2 value	'p' value
		Very poor & poor	Neither poor nor good	Good & very good			
Age Group (in years)	< 45	6(22.2)	5(18.5)	16(59.3)	27 (100.0)	5.6802	0.224
	45-49	7(28.0)	6(24.0)	12(48.0)	25 (100.0)		
	50 & above	91(41.7)	36(16.6)	91(41.7)	218(100.0)		
Religion	Hindu	91(38.7)	41(17.5)	103(43.8)	235(100.0)	0.0459	0.9773
	Muslims & Christians	13(37.1)	6(17.2)	16(45.7)	35 (100.0)		
Marital status	Married	80(36.0)	36(16.2)	106(47.8)	222(100.0)	**6.84**	**0.033***
	Divorced/ separated/ widowed	24(50.0)	11(22.9)	13(27.1)	48(100.0)		
Type of family	Nuclear family	79(43.0)	35(19.0)	70(38.0)	184(100.0)	**8.55**	**0.014***
	Joint & 3 generation families	25(29.0)	12(14.0)	49(57.0)	86(100.0)		
Literacy status	Illiterate	84(43.5)	28(14.6)	81(41.9)	193(100.0)	**8.35**	**0.015***
	Literate	20(26.0)	19(24.6)	38(49.4)	77(100.0)		
Occupation	Home maker	87(40.1)	37(17.1)	93(42.8)	217(100.0)	1.1630	0.559

	Working women	17(32.1)	10(18.8)	26(49.1)	53(100.0)		
Socio-Economic Status	Classes I, II, and III (combined)	38(34.0)	15(13.0)	59(53.0)	112(100.0)	**6.03**	**0.049***
	Classes IV and V (combined	66(41.7)	32(20.3)	60(38.0)	158(100.0)		
Parity	0 – 2	55(36.9)	27(18.1)	67(45.0)	149(100.0)		
	3 – 4	35(39.4)	13(15.1)	40(45.5)	88(100.0)	1.445	0.836
	5 & above	14(40.9)	7(22.7)	12(36.4)	33(100.0)		
Duration of post-menopausal period (years)	1 – 3	27(34.6)	11(14.1)	40(51.3)	78(100.0)	2.8862	0.577
	4 – 6	23(37.7)	13(21.3)	25(41.0)	61(100.0)		
	7 – 9	54(41.2)	23(17.6)	54(41.2)	131(100.0)		
Tubectomy adopted	Yes	27(28.2)	18(18.6)	51(53.2)	96(100.0)	**6.51**	**0.038***
	No	77(44.3)	29(16.7)	68(39.1)	174(100.0)		
Reason for menopause	Natural	76(35.2)	33(15.3)	107(49.5)	216(100.0)	**13.24**	**0.001***
	Induced	28(51.8)	14(26.0)	12(22.2)	54(100.0)		
Presence of chronic medical condition	Yes	29(54.7)	8(15.1)	16(30.2)	53(100.0)	**7.58**	**0.023***
	No	75(34.6)	39(18.0)	103(47.5)	217(100.0)		

Discussion

In the present study, the 'overall' quality of life of post-menopausal women was assessed and the prevalence of 'poor' QOL was noted among 38.5% subjects. Similarly in Tamil Nadu [5] study, 44% of subjects had 'poor' QOL. In contrast, West Bengal[6] study found 77% had 'poor' QOL. Studies in China [7] and Egypt [8] revealed that 57.2% and 77.8% of women had 'poor' QOL respectively.

The present study showed that 24.8% of subjects were dissatisfied about their general health. However Tamil Nadu [14] study found that 46% of subjects were dissatisfied about their general health.

Association between Socio-demographic factors and Quality of Life

In the present study, it was noted that the subjects in the higher age group of 50 years and above had higher prevalence of poor QOL (41.7%), but this was not statistically significant. In contrast, the studies conducted in USA [3] Sweden [9] Mangalore [10] and West-Bengal [6] found significant association between the prevalence of poor QOL and the higher age group of 50 years & above.

The present study noted that among the subjects in the combined category of Divorced/ Separated/ Widowed women, 50% of subjects perceived poor QOL. This was statistically significant. Bangalore [11] study also found that QOL was poor among 'Divorced/ Separated/ Widowed' women. Iran [12] study also recorded similar findings. These women in the category of 'divorced/ separated/ widowed' were not in a position to get the emotional support from their husbands at this time of post-menopausal period, and this might be a probable reason

for the higher prevalence of 'poor QOL' among them.

The present study found that the women belonging to nuclear families had a higher prevalence (43.0%) of poor QOL. This was statistically significant. Similar finding was noted in Tamil Nadu [5] and Bangalore [11] studies. The subjects in nuclear families may be over-burdened with the household chores and have little time for their own health needs, resulting in higher prevalence of poor QOL.

In the present study, 43.5% of illiterate women and 26.0% of literate women perceived poor QOL. This difference was statistically significant. The studies done in Ecuador [13] and Iran [12] observed that women with lower educational level had 'poor QOL'. Similar finding was noted by others also [3] 14. This might be due to the fact that women with lower education might have inadequate knowledge about menopause and its consequences. In contrast, one study done in West-Bengal [6] noted higher prevalence of 'poor QOL' among the literate women.

In the present study, 40.1% of the home-makers and 32.1% of working women perceived poor QOL. However this difference was not statistically significant. Similar findings were observed in some other studies [4-11,12]. also.

In the present study, 41.7% of subjects in classes IV and V (combined) and 34.0% of subjects in classes I, II, and III (combined) perceived poor QOL. This was statistically significant. Similar finding was noted by Davangere [17] study & West-Bengal [6] study. The subjects belonging to lower socio-economic status have only limited income/ resources to lead their life, resulting in poor QOL.

The present study found that with increasing parity, the QOL became poorer. However the difference was not significant. Similarly, Ecuador study [15] noted that higher parity increased the risk for developing severe symptoms leading to impaired quality of life. Jordan study [15] observed that when the subjects had delivered more number of children, they had severe menopausal symptoms.

The probable reason may be that higher parity / repeated pregnancies in a woman may cause adverse health effects, which may lead to poor QOL.

Duration of post-menopausal period and QOL

In the present study, there was increase in the prevalence of poor QOL with increasing duration of post-menopausal period. This was not significant. However, the studies in Iran [12] and West-Bengal [6] recorded significant association between 'poor QOL' and duration of more than 5 years of menopausal period.

Adoption of permanent Family Planning method and QOL

In the present study, 28.5% of subjects who adopted tubectomy and 44.0% of subjects who did not adopt tubectomy perceived poor QOL. This was statistically significant. No other study had evaluated this association. The women who had not adopted family planning would have higher parity and the consequent adverse health effects leading to poor QOL.

Induced menopause and QOL

In the present study, 35.2% of subjects who had natural menopause and 51.8% of subjects who had induced menopause perceived poor QOL. This was statistically significant. This finding is similar to Mangalore [10] study. Dennerstein [14] also noted that induced menopause had association with menopausal symptoms. When a woman had induced menopause due to the removal of the uterus

and/or ovaries, she might be affected mentally and she might feel as an incomplete woman which might lead her to perceive the QOL as poor.

Chronic medical condition and QOL

In the present study, 54.7% of subjects who had one or more chronic medical conditions and 34.6% of subjects who did not have any chronic medical condition perceived poor QOL. This was statistically significant. If a chronic medical condition was present in an individual, it would have a negative impact on the person's life leading to poor QOL and this was particularly evident among the post-menopausal women.

Conclusion

The prevalence of poor quality of life (QOL) among the post-menopausal women was 38.5%. The variables such as nuclear family, illiteracy, non-adoption of family planning method of tubectomy, induced menopause and presence of one or more chronic medical conditions were found to be 'predictors' of poor QOL among them.

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