

*Assessing Quality of Life and Menopausal Symptoms among
Lothas of Nagaland, India*

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The Asian Conference on the Social Sciences 2018
Official Conference Proceedings

Abstract

The study aims at assessing the quality of life and menopausal symptoms in rural population of Wozhuro range, Nagaland. In the studied population a sample size of 202 adult females were selected with age ranging from 35-60 years and were divided into two groups based on the menopausal status. An exclusion criterion was selected where those participants who were pregnant, undergone induced menopause and unmarried were excluded from the study. The quality of life was assessed using WHOQOL-BREF, Greene Climacteric Scale for menopausal symptoms and a structured proforma was formulated for collecting socio-demographic parameters. The mean and standard deviation in all domains of quality of life showed higher values among premenopausal as compared to postmenopausal females and the chi-square value was found to be significant for psychological, social and environmental domain. The multinomial regression suggested that those participants who had lower quality of life were at risk of developing anxiety, depression, somatic and vasomotor symptoms. Poor current health status also showed higher risk of depression whereas education did not show significant association with menopausal symptoms. Menopausal women were also found to be more at risk of developing anxiety and vasomotor symptoms. Rural females of Wozhuro range showed lower quality of life among postmenopausal females as compared with premenopausal females and poor quality of life was associated with the severity of menopausal symptoms. The study on related facts of menopausal women is important to help women undergo the distressing period of their life with ease.

Keywords: Quality of life, menopausal symptoms, Lotha, Nagaland

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Introduction

Menopause is the permanent cessation of menstruation resulting from the loss of follicular activity in the ovaries. It is a stage when the menstruation cycle stops for longer than 12 months and there is a drop in the estrogen and progesterone, the two important hormones in the female body (WHO, 1996). The menopausal transition is a function of progressive decline in ovarian follicular population and reduced steroidogenic capacity of ovarian stroma, as such it represents ovarian senescence (Al-Azzawi & Palacios, 2009)

During the menopausal transition, various physiological as well as morphological change occurs. Some of these changes takes place in the body as a result of cessation of ovarian function and related menopausal events, and others are a function of ageing process (WHO, 1996). Most of the women with the onset of menopause suffer from various symptoms which may or may not be related to menopause. The various symptoms of menopause have been categorized by scholars and researchers for in depth study and for the association between the severities of those symptoms with menopause. Little distinction has been made between symptoms that result from a loss of ovarian functions, from the ageing process or from the socio-environmental stresses of mid-life years (WHO, 1996). The experience of menopausal symptoms involves not only a complex interaction between socio-cultural, psychological and environmental factors but also the biological changes related to the altered ovarian hormonal status or deficiency (Dennerstein et al., 2000; Randolph Jr et al., 2003).

With the advancement in technology and increase in life expectancy the number of elderly people has increased significantly. The overall health and well-being of the mid-aged women has become a major public health concern around the world. More than 80 % of the women experience physical or psychological symptoms in the year approaching menopause, leading to a decrease in quality of life (Whelan, 1990).

According to WHO, the quality of life can be defined as the individual's perception of their status in life according to the cultural and value systems the person live in, considering his goals, expectations, standards and concerns. The study of quality of life among the post-menopause has become an essential component in clinical practice. Most studies of QOL of post-menopause exist from developed countries. A very little information exists about this in developing countries like India (Sharma & Mahajan, 2015). A study on Arabian Qatari women conducted by Bener and Falah (2014) on the age group of 40-60 suggested lower menopausal symptoms compared with western countries and it showed that various factors were associated with menopausal symptoms and these symptoms shows negative effects on the quality of life.

The present study as to the best of our knowledge is the first community based study conducted in Wozhuro range of Wokha, Nagaland. The objective of the present study was to assess the association between the quality of life and menopausal symptoms among the adult females of Wozhuro range.

Methods

Cross-sectional data was collected among 202 adult females of Wozhuro range under Wokha district, Nagaland using multi-staged stratified sampling. The sample consists of age ranging from 35-60 years, where an exclusion criterion was set for selecting the sample. Those Participants who were pregnant, had undergone induced menopause and had never married were excluded from the study.

A structured proforma containing the socio-demographic profile was administered for collecting the necessary details. Out of the 202 Participants, 111 Participants were categorized under postmenopause and 91 Participants in premenopause category.

The quality of life was assessed by using the WHOQOL-BREF (WHO, 1996). The WHOQOL-BREF is an abbreviated version of WHOQOL-100 developed by WHO in 1996 and was administered for the assessment of Quality of life. Due to the lengthy questions in WHOQOL-100, WHOQOL-BREF questionnaire has been developed in order to make a reliable, valid and responsive assessment of generic quality of life that is applicable to the people living in different conditions and cultures. WHO's initiative to develop a quality of life assessment arises from a need for a genuinely international measure of quality of life and a commitment to the continued promotion of a holistic approach to health and health care (WHO, 1996).

The WHOQOL Brief consists of 26 questions of which question 1 asks about an individual's overall perception of quality of life and question 2 asks about an individual's overall perception of their health. Based on the remaining 24 questions, WHOQOL-Brief is divided into four domains namely, Physical, Psychological, Social and Environmental. The four domain scores denote an individual's perception of quality of life in each particular domain. Domain scores are scaled in a positive direction i.e. higher scores denote higher quality of life. The mean score of items within each domain is used to calculate the domain score. The scores were calculated according to the standard methods than the raw scores were converted to transformation scores. The first transformation converts scores to range of 4-20 and the second transformation converts domain scores to 0-100 scale. Higher scores reflect better quality of life (WHO, 1996).

Various standardized questionnaires have also been developed to assess the menopausal symptoms. The Greene Climacteric Scale is one such scale used widely for studying the menopausal symptoms experienced by women during the onset of menopause and in some cases, continues thereafter. The Greene Climacteric Scale was developed by Greene in 1976 (Greene, 1976) which provides a brief measure of menopausal symptoms and has classified the symptoms into psychological symptoms, physical or somatic symptoms and vasomotor symptoms which can be used to assess changes in different symptoms, before and after menopause treatment. The scale consists of 21 questions with four-point rating scale based on the severity: not at all (0); a little (1); quite a bit (2); extremely (3) where it is divided into clusters and sub-clusters. The clusters consist of Psychological cluster with 11 symptoms sub-divided into anxiety sub-cluster with 6 symptoms and depression sub-cluster with 5 symptoms, Somatic cluster with 7 symptoms, Vasomotor cluster with 2 symptoms and sexual dysfunction cluster with 1 symptom.

Statistical analysis was performed using SPSS version 17. Mean, standard deviation and chi-square was used for finding out the difference between the two menopausal groups. Multi-logistic regression was used to find the risk factor for various variables. The purpose of the study was explained to each participant and a written informed consent was obtained from all the participants before starting the study and ethical clearance was taken prior to start the work from Intuitional ethical committee.

Results

The socio-demographic and health status of both premenopausal and postmenopausal females are displayed in table 1. The marital status of the participants showed that premenopausal females all married and among postmenopausal females, 77.4% were married and 22.5% were widows, the difference was found to be statistically significant. Age at marriage suggested that 43.9% of premenopausal females and 59.4% of postmenopausal females were married before 19 years and 56% of premenopausal and 40.5% of postmenopausal females were found to be married after 20 years but the difference was found to be non-significant.

Higher percentages of postmenopausal females (51.3%) were illiterate when compared with their counterpart premenopausal females (12.1%). Only 18.9% females who attained menopause got middle and higher education as compared to premenopausal women (45.1%) with significant difference ($p < 0.001$). Self-reported health status showed that 13.6% females in postmenopause category reported their health status as unwell while 6.6% premenopausal females reported their health status as unwell.

Table 1: Socio-demographic and health status variable among premenopausal and postmenopausal females.

Characteristics	Premenopause	Postmenopause	Total	χ^2
	N (%)	N (%)	N (%)	
Marital status				
Married	91(100)	86(77.4)	177(87.6)	23.39***
widow	0(0)	25(22.5)	25(12.4)	
Age at marriage				
≤19	40(43.9)	66(59.4)	106(52.5)	19.90
≥20	51(56.0)	45(40.5)	96(47.5)	
Education				
Illiterate	11(12.1)	57(51.3)	68(33.6)	41.61***
Primary	39(42.8)	33(29.7)	72(35.7)	
≥Middle	41(45.1)	21(18.9)	62(30.7)	
Health status				
Fit	11(12.1)	13(11.7)	24(11.8)	2.58
Average	74(81.3)	83(74.7)	157(77.8)	
Not well	6(6.6)	15(13.6)	21(10.4)	

*** $p < 0.001$

Table 2: Quality of life factors among premenopausal and postmenopausal females.

Domains	Mean±SD		p-value
	Premenopause	Postmenopause	
Physical	52.2±11.0	45.2±10.3	<0.001
Psychological	60.2±10.0	52.8±8.2	<0.001
Social	66.0±12.8	64.9±11.3	<0.05
Environmental	37.4±8.8	33.7±9.8	<0.01
Total	78.3±9.6	72.2±8.1	<0.001

The quality of life among premenopausal and postmenopausal females have been shown in table 2. Considering mean and standard deviation in all domains of quality of life, premenopausal females showed higher values which suggested better quality of life as compared to their counterpart postmenopausal females.

Table 3: Logistic regression of quality of life and menopausal symptoms

Domains	Anxiety	p-value	Depression	p-value	Somatic	p-value	Vasomotor	p-value
Physical	3.92 (1.53-10.05)	0.004	4.68 (1.78-12.31)	0.002	3.13 (1.18-8.30)	0.021	4.21 (1.83-9.67)	0.001
Psychological	4.25 (1.75-10.30)	0.001	1.17 (0.50-2.68)	0.711	3.87 (1.64-9.14)	0.002	1.63 (0.72-3.68)	0.238
Social	0.38 (0.15-0.94)	0.038	0.85 (0.39-1.84)	0.684	0.36 (0.15-0.88)	0.026	0.60 (0.28-1.29)	0.195
Environmental	5.04 (2.16-11.75)	0.000	5.13 (2.31-11.40)	0.000	5.15 (2.30-11.50)	0.000	1.23 (0.57-2.67)	0.592
health status	0.52 (0.16-1.71)	0.284	3.22 (1.06-9.78)	0.039	2.02 (0.61-6.69)	0.245	1.53 (0.50-4.67)	0.447
Education	0.96 (0.39-2.37)	0.939	0.96 (0.38-2.40)	0.945	0.77 (0.30-1.97)	0.589	0.93 (0.42-2.03)	0.860
Menopausal status	0.262 (0.12-.57)	0.001	1.22 (0.56-2.64)	0.612	0.36 (0.16-0.79)	0.011	0.28 (0.14-0.55)	0.000

A logistic regression analysis was performed to see the risk factor of different domain of quality of life and menopausal symptoms (Table 3). The study showed that participants with low physical domain had 3.92 times higher incidence of anxiety [Odds Ratio (OR) 3.92 95%CI (1.53-10.05)] (p<0.01), 4.68 times higher incidence of depression [Odds Ratio (OR) 4.68 95%CI (1.78-12.31)] (p<0.01), 3.13 times higher incidence of somatic symptoms [Odds Ratio (OR) 3.13 95%CI (1.18-8.30)] (p<0.05) and 4.21 times higher incidence of vasomotor symptoms [Odds Ratio (OR) 4.21 95%CI (1.83-9.67)] (p=0.001). In case of low psychological domain, the participants had 4.25 higher incidence of anxiety (p=0.001), 1.17 times higher incidence of depression (p=NS), 3.87 times higher incidence of somatic symptoms (p<0.01) and

1.63 times higher incidence of vasomotor symptoms ($p=NS$). Low social and environmental domains of quality of life had higher incidence of anxiety, depression, somatic and vasomotor symptoms. Poor health status, illiteracy and menopausal women was also seen to have higher incidence of anxiety, depression, somatic and vasomotor symptoms.

Discussion

With the advancement in overall technology and modern medicine, the life expectancy of an individual has increased and therefore, women are likely to live in an estrogen deficient state for more than two decades beyond menopause (Nisar & Sohoo, 2010). During the menopausal transition, physiological as well as morphological changes occur. A variety of physiological changes takes place in the body, some of these are a result of cessation of ovarian function and related menopausal events, others are a function of ageing process (WHO, 1996).

In our study, statistically significant difference was seen in marital status and education. In the marital status, married women were seen to be more in both premenopausal and postmenopausal group, in educational qualification, more participants had obtained primary education.

The quality of life in all domains among premenopausal females was higher than the postmenopausal females in the study and the difference was found to be statistically significant. This may be due to the severity of menopausal symptoms experienced which shows higher frequency among postmenopausal females. The findings of this study are consistent with some of the studies in Asia (Fuh et al., 1976; Chen et al., 2008). However, differences are found in other studies too. Nisar and Sohoo (2010), found significantly lower scores in physical, psychological and somatic domains for postmenopausal women as compared to pre and perimenopausal group. Ozkan et al., (2005) also found no significant difference in pre and postmenopausal women with respect to their quality of physical life, psychological, social relationships and environment scores.

Waidyasekera et al., (2009) in their study on Sri Lankan women suggested that women with menopausal symptoms had significantly lower quality-of-life scores in most of the domains compared with women without symptoms. The presence of menopausal symptoms was significantly associated with a decreased health-related quality of life in the women. López-Alegría and De Lorenzi (2011) also suggested that postmenopausal women with unhealthy lifestyle had lower quality of life and more menopausal symptoms.

In this study it was found that low quality of life domains were associated with higher incidence of anxiety, depression, somatic and vasomotor symptoms. Likewise, in a study by AlQuaiz et al (2017) several women reported severe/moderate impact of vasomotor, psychosocial, physical, and sexual symptoms and they further reported that lacking emotional support was associated with severe/moderate vasomotor, and physical symptoms.

Conclusion

The postmenopausal females of Wozhuro range had lower quality of life compared to premenopausal females. From this study it can be concluded that menopausal symptoms play a vital role in determining the quality of life and it has an adverse effect on the severity of the symptoms. Such study will also help women to understand and create awareness so that, they may be able to cope better with the menopausal symptoms and get timely counselling and medication if needed. Therefore, there is a need to improve the quality of life to decrease the risk of severe menopausal symptoms, hence to stabilize the way of life of families of menopause women.

Acknowledgements

I would like to acknowledge all the participants who were enrolled in the study. UGC-JRF for financial assistance and international travel grant from ICMR (Indian Council of Medical Research) is highly appreciated.

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