

Severity of Menopausal Symptoms and its Relationship with Quality of Life in Post Menopausal Women-A Community Based Study

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ABSTRACT

Background: Menopause is the anchor point defined as 12 months of amenorrhea following the final menstrual period (FMP). Post menopause is the span of time dating from the final menstrual period and it is early within 5 years of FMP and the late when more than 5 years after FMP. The transition defined by perimenopause and menopause may be viewed as problematic period of menstrual, emotional and physiologic changes.

Aim: This study tested the severity of menopausal symptoms and its relationship with quality of life in postmenopausal women.

Methods: A Cross sectional study was conducted in selected areas in Kattankulathur Block, Chennai, Tamilnadu. After Initial screening, Simple random sampling technique was adopted to select the study participants. The total sample size comprised of 130 post menopausal women. Assessments were made by five point rating scales for assessing the physical and psychological symptoms of postmenopausal women which was based on Standardized Menopause Rating Scale (MRS) and WHO QOL BREF Scale for assessing their quality of life.

Results: Hot flushes (72%), sweating (71.5%) and lack of energy (63%) are the most prevalent symptoms experienced by postmenopausal women. Majority of them 56(44%) had very poor quality of life and 59(46%) were very dissatisfied about their health status. The lower mean scores were found in physical, psychological, social and environment domain among postmenopausal women. There was fair negative correlation observed between quality of life with physical and psychological symptoms of postmenopausal women.

Conclusion: The study concluded that, severity of menopausal symptoms negatively affected the quality of life of postmenopausal women.

Key words: menopausal symptoms, quality of life, post menopausal women

INTRODUCTION

Menopause is a normal occurrence in the life of every woman. The term is derived from the Greek, which actually means 'cessation of periods'. Menopause occurs due to cessation of ovarian function. Prior to cessation, there is a period, over 1 or 2 years of failing or declining ovarian function which is known as climacteric or premenopause^{1,2}.

In 2001, the Stages of Reproductive Aging Workshop (STRAW), sponsored by the North American Menopause Society (NAMS), and others addressed nomenclature and staging of menopause. Menopause is the anchor point defined as 12 months of amenorrhea following the final menstrual period (FMP). Post menopause is the span of time dating from the final menstrual period whether spontaneous or induced. It is early within 5 years of FMP and the late when more than 5 years after FMP. The transition defined by perimenopause and menopause may be viewed as problematic period of menstrual, emotional and physiologic changes. Beginning with perimenopausal changes in hormones, females may begin the common degenerative process of aging, which includes the possibility of cardio vascular disease, diabetes, and

osteoporosis, among other diseases. However, medically, perimenopause may present an opportunity for improvement of health screening, recognition of otherwise silent disease, and motivation for a healthier life style for the rest of patient's life³.

A wide array of symptoms and signs are observed in women during menopause which include: hot flushes, excessive perspiration, mood swings, depression, anxiety, insomnia, urinary symptoms like frequency, nocturia, vaginal dryness, leucorrhoea, pruritis, bachache, muscle weakness, joint pain, memory loss, dementia, dental problems, skin changes and hirsutism etc. Many of the above symptoms are age related and aggravated by stresses of life. A caring Gynaecological nurse must adopt a holistic approach and tender advice regarding diet, lifestyle and relaxation techniques to alleviate menopausal symptoms^{4,5}.

Being menopausal in India is not only difficult for women; it is almost officially unheard of in public circles. But women in India go through menopause just as women do elsewhere in the world. India has traditionally ignored women's health issues including menopause but now exciting changes are taking place. Indian women face

Table 1: Demographic Variables of postmenopausal Women. n=128

Demographic variables	n	%
Age (mean±SD)	49.42±2.71	
Religion		
Hindu	87	68
Muslim	18	14
Christian	23	18
Marital status		
Married	91	71.1
Separated	13	10.1
Widow	12	9.4
Single	12	9.4
Type of family		
Joint family	43	33.6
Nuclear family	80	62.5
Extended family	5	3.9
Availability of support system	36	28.1
Self group		
Friends	29	22.6
Relatives	55	43.0
Others	8	6.3
Age of menarche (mean±SD)	13.19±1.95	
Parity		
Nullipara	5	3.9
Primipara	54	42.2
Multipara	62	48.4
Grand multipara	7	5.5
Duration of attainment of menopause		
1 - 2 yrs	63	49.2
>2 - 3 yrs	40	31.2
>3 - 4 yrs	18	14.1
>4 - 5 yrs	7	5.5

Table 2: Distribution of physical and psychological symptoms of postmenopausal women. n=128

Menopausal symptoms	n	%
No symptoms	-	-
Mild symptoms	-	-
Physical symptoms		
Moderate symptoms	24	18.7
Severe symptoms	88	68.8
Very severe symptoms	16	12.5
No symptoms	-	-
Psychological symptoms		
Mild symptoms	-	-
Moderate symptoms	51	39.8
Severe symptoms	77	60.2
Very severe symptoms	-	-

many social and cultural challenges in their lives but when it comes to menopause these women share many of the same experiences with women just like them. Women in India are not different in terms of attitudes towards menopause; some women dread and fear menopause while

other women embrace or at least accept menopause. The fear and dread of menopause stem from being seen as no longer useful or productive in society. For the most part, life for Indian women centers on home and family while accepting secondary citizen status in this male dominated culture. Women's issues including health and menopause are almost never discussed⁶.

Menopause does not really require medical treatment since it is a natural biological process. The menopause treatments actually focus on relieving the symptoms of menopause and in preventing any chronic condition that may occur during the postmenopausal years such as heart disease and osteoporosis. Some under Hormone Replacement Therapy (HRT) which provides a low dose of estrogen in the body which helps in alleviating the symptoms of menopause. However, HRT has some serious side effects and increases risk of heart problems. Exercising, proper diet, not smoking, and reduction of stress are also effective ways to make menopause more bearable and also facilitate in preventing any chronic ailments that can occur in the postmenopausal years^{7,8}.

Quality of life (QOL) has been defined by the World Health Organization as the "individual's 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, expectations, standards and concerns". It is a broad ranging concept incorporating in a complex way the persons' physical health, psychological state, level of independence, social relationships, personal beliefs and their relationships to salient features of the environment. This definition reflects the view that quality of life refers to a subjective evaluation, which is embedded in a cultural, social and environmental context. Quality of life is the main goal of health care and a significant factor for individual health and it is used to plan and evaluate health care programs. Nowadays, quality of life is considered an important outcome that reflects the impact of health conditions, diseases, and treatments from the subjective perspective of patients. Thus, the evaluation of quality of life is an important component in providing a more complete picture of the effects of menopause as well as evaluating the possible benefits of different treatments and therapies^{9,10,11}.

Conde DM and others done a study to evaluate QOL and identify its associated factors in a cohort of postmenopausal women who had not received hormone therapy. A cross-sectional study was conducted among 81 postmenopausal women. The most prevalent symptoms were nervousness (67%) and hot flushes and sweating (51%). Factors associated with poorer QOL were sweating, palpitations, nervousness (physical component), and dizziness, nervousness, depression, insomnia and dyspareunia (mental component). They observed that, menopausal symptoms negatively affected the physical and mental components of QOL in postmenopausal women¹².

Menopausal transition may make women more aware of future health risks due to increased symptomatology and help-seeking behaviour. Motivation for health promotion may be further strengthened if women perceive life-style modifications as an alternative, non-pharmacological, way

Table 3: Distribution of quality of life and satisfaction regarding health status of postmenopausal women (Quality of life, Item no:1 and 2). n=128

Quality of life of postmenopausal women		n	%
Quality of life	Very poor	56	44
	Poor	28	22
	Neither poor nor good	39	30
	Good	5	4
	Very Good	-	-
	Very dissatisfied	59	46
Satisfaction regarding health status	Dissatisfied	33	26
	Neither satisfied nor dissatisfied	30	23
	Satisfied	6	5
	Very satisfied	-	-

Table 4: Domain wise quality of life of postmenopausal women. n=128

Domains of Quality of life	Mean	SD
Physical domain	40.84	7.71
Psychological domain	39.00	14.52
Social domain	39.04	18.26
Environment domain	35.87	17.89
OVERALL	38.69	14.60

of managing menopausal symptoms. However, more evidence on effectiveness and efficacy of lifestyle changes, especially exercise, yoga on decreasing hot flushes and other symptoms and increasing quality of life is urgently needed. In the future, menopause may act as a window of opportunity for health promotion and life-modifications¹³. The present study aims to assess the severity of menopausal symptoms and its relationship with quality of life in postmenopausal women in selected areas, Kattankulathur Block, Chennai, Tamilnadu, India.

METHODS

A Cross sectional study was conducted in selected areas in Kattankulathur Block, Chennai. The Kattankulathur block is a revenue block in the Kanchipuram district of Tamil Nadu, India. It has a total of 39 panchayat villages with a population of 1, 97,596 population. Five villages were selected for the study. After Initial screening, Simple random sampling technique was adopted to select the study participants.

Sample size was calculated based on the pilot study results and also computed through power analysis. The sample size was estimated by power analysis prior to the commencement of the study. The estimated sample size was 111, considering the attrition rate of 10%, the sample size was rounded to 130. The total sample for the study comprised of 130 post menopausal women. The inclusion criteria for sample selection includes a) women who attained permanent cessation of menstruation b) women with age group of 45-55 years, c) women who are presenting with physical and psychological symptoms

such as hot flushes, sweating, insomnia, anxiety, depression, etc. The exclusion criteria include a) women with gynecological problems like fibroid uterus, Dysfunctional uterine bleeding, prolapsed uterus etc, b) women who are on Hormone replacement therapy and c) who are on medical treatment for relieving symptoms of menopause.

Ethical Consideration

Formal approval was obtained from the Institutional review board and Institutional ethical committee. Both written and verbal information about the study were given in local language to women who participated in the present study. Women were requested to participate voluntarily in the study. The objectives, practices, goodness, problems and time period involved in practice were explained in the consent form. They were informed that, they have a right to withdraw at anytime during the course of the study.

Instruments

The questionnaire for present research study comprises of three sections. Section I pertained information regarding demographic data like age, religion, marital status, type of family, availability of support system, age of menarche, parity and duration of attainment of menopause.

Section II assessed menopausal symptoms for which, Five point rating scales were used which are based on Standardized Menopause Rating Scale (MRS)¹⁶. It has two parts. Part I Includes Five point Rating scale which consists of 20 items for measuring the physical symptoms and Part II consists of 20 items for measuring the psychological symptoms with a severity ranging from 0-4 (0- No symptoms, 1- mild symptoms, 2- moderate symptoms, 3- severe symptoms, and 4- very severe symptoms). The participants were asked to indicate the level of severity of symptoms in the scale provided. The reliability of the tools were obtained by test-retest method, and a reliability coefficient of 0.76 for physical symptoms and 0.77 for psychological symptoms and the tool was found to be statistically significant.

Section III was related to assessment of quality of life of postmenopausal women. Standardized WHO QOL –BREF questionnaire¹⁷ in Tamil version was used for the study without any modifications. The formal permission was obtained from World Health Organization for using the scale for present study. The scale contains 26 items under 4 domains such as physical domain, psychological domain, social domain and environment domain. Out of 26 items, 23 items were positively scored and 3 items (Item number 3, 4 and 26) were negatively scored in the scale. The first two items that were examined separately: Item 1 asked about an individual's overall perception of quality of life and Item 2 asked about an individual's overall perception of menopausal women's health. Other 24 items were included in the domains. Domain scores are scaled in a positive direction (higher scores denote higher quality of life). The mean score of items within each domain is used to calculate the domain score. Mean scores are then multiplied by 4 in order to make domain scores and subsequently transformed to a 0-100 scale using the formula. Domain wise interpretation of data was done by using various statistical methods.

Table 5: Correlation of quality of life with physical and psychological symptoms of postmenopausal women. n=128

Variables	r value	P value
Quality of life Vs Physical symptoms	-0.376	0.000**
Quality of life Vs Psychological symptoms	-0.363	0.000**
Physical symptoms Vs psychological symptoms	0.204	0.021*

** - 1% level of significance, * - 5% level of significance

Statistical Package

Statistical Package for social sciences (SPSS) version 16, IBM, Chicago, USA and Instat were used for data analysis. The results are presented as percentages, mean and standard deviation. Pearson co-relation coefficient was used for assessing the relationship between menopausal symptoms and quality of life. P value less than 0.05 was considered as statistically significant.

RESULTS

Of 130 participants, two of them withdrew from the study due to change in residency and illness. Data analysis was performed for the remaining 128 participants. The mean age of women was 49.42 ± 2.71 . Most of them 87(68%) belonged to Hindu religion, 71.1% of them were married, 80(62.5%) belonged to nuclear family, relatives were the major support system for most of them (43%). The mean age of menarche was 13.19 ± 1.95 , majority 62(48.4%) were multiparous women, and most of them 63(49.2%) attained menopause within 1-2 years of duration.

It is observed that, 88 women (68.8%) had severe physical symptoms of menopause, 18.7% of them suffered with moderate symptoms and 16(12.5%) of them had very severe symptoms of menopause. Among these physical symptoms, the mean scores were high for hot flush and excessive sweating.

Regarding the psychological symptoms, majority 77(60.2%) of postmenopausal women had severe psychological symptoms and 51(39.8%) of them felt moderate psychological symptoms of menopause. Among the psychological symptoms, the mean scores were high for lack of energy, forgetfulness, decrease in concentration and low self esteem.

It is inferred from the above table that, maximum of postmenopausal women 56(44%) had very poor quality of life, 39(30%) of them had neither poor nor good quality of life, 28(22%) experienced poor quality of life and only 5(4%) of them had good quality of life. (Item No 1). Regarding the satisfaction regarding health status, maximum of postmenopausal women 59(46%) were very dissatisfied about their health, 33(26%) were dissatisfied, 30(23%) were neither satisfied nor dissatisfied and only 6(5%) of them were satisfied about their health. (Item No 2).

Table 4 illustrated that, the lower mean scores were found in physical domain (40.84 ± 7.71), psychological domain (39.00 ± 14.52), social domain (39.04 ± 18.26) and environment domain (35.87 ± 17.89) among postmenopausal women. The overall score was 38.69 ± 14.60 .

Table 5 shows the correlation between menopausal symptoms and quality of life of postmenopausal women. It is observed that, there was fair negative correlation found between quality of life with physical symptoms and psychological symptoms. There was fair positive correlation found between physical symptoms with psychological symptoms of postmenopausal women.

DISCUSSION

Many women find the time around menopause stressful. This may be partially due to hormonal changes and resulting bothersome symptoms such as hot flashes and disrupted sleep. In addition, family and personal issues such as the demands of teenage children, children leaving home, aging parents, midlife spouses, and career changes often converge on women during these years. Chronic stress is not good for anyone's health. It may cause increased blood pressure and heart rate, headaches, gastric reflux, depression/anxiety, and over the long term, an increased risk for heart disease. Some believe that, chronic stress may affect the immune system, making the people more susceptible to illness, infections, and even cancer. Stress affects not only the health but also relationships, work performance, general sense of well-being, and quality of life¹⁸.

The current study showed that, the common physical symptoms reported by the menopausal women are hot flushes (72%), sweating (71.5%), backache (67.5%), muscle pain(67%), changes in sexual activity(62.5%), difficulty in urination(62%) and difficulty in falling asleep (60.3%). Among these physical symptoms, hot flushes (72%) and sweating (71.5%) are the most prominent symptoms experienced by the postmenopausal women.

The common psychological symptoms are lack of energy (63%), forgetfulness (61.5%), decrease in concentration (60%), low self esteem (59.5%), angry outburst (59%), general decrease in performance (58.5%), poor judgment (58%), frustration (56.5%) and isolation (55%). Out of these symptoms, lack of energy was the highest symptoms reported by the women.

The study findings were consistent with the study conducted by Blümel JE, et al and they found that, muscle and joint discomfort, physical and mental exhaustion and depressive mood were highly prevalent and rated as severe-very severe (scores of 3 and 4), at a higher rate than vasomotor symptoms. Of premenopausal women (40-44 years), 77.0% reported at least one rated complaint, with 12.9% displaying MRS scores defined as severe (>16). The latter rate increased to 26.4% in perimenopausal, 31.6% in early postmenopausal and 29.9% among late postmenopausal women. As measured with the MRS, the presence of hot flushes increased the risk of impairment of overall quality of life in both premenopausal and

peri/postmenopausal women. In this large, mid-aged, female Latin American series, muscle/joint discomfort and psychological symptoms were the most prevalent and severely rated menopausal symptoms¹⁹.

The study results are similar with the study done by Waidyasekera H, et al and they explored that, the most prevalent menopausal symptoms were joint and muscular discomfort (74.7%), physical and mental exhaustion (53.9%), and hot flushes (39.1%). Women with menopausal symptoms had significantly lower ($P < 0.05$) quality-of-life scores in most of the domains of the Short Form 36 compared with women without symptoms. The presence of menopausal symptoms was significantly associated with a decreased health-related quality of life in the women²⁰.

The present study found that, maximum of postmenopausal women 56(44%) had very poor quality of life and 59(46%) were very dissatisfied about their health status. The lower mean scores were found in physical, psychological, social and environment domain among postmenopausal women. There was fair negative correlation observed between quality of life with physical symptoms and psychological symptoms. It shows that, when the physical and psychological symptoms were more, fair quality of life was experienced by menopausal women. There was fair positive correlation found between physical symptoms with psychological symptoms of postmenopausal women. This showed that, both physical symptoms and psychological symptoms were increased in postmenopausal women.

López-Alegría F, De Lorenzi DR in their study, they studied about prevalence of menopausal symptoms and their relationship with lifestyles and quality of life. The Menopause Rating Scale (MRS), a survey that measures menopausal symptoms and has questions related to lifestyles, was applied to 1023 women aged 54 ± 6 years (range 45 to 64 years), consulting in primary health care clinics. Fifty six percent of women did not have a paid work, 64% were nonsmokers and 90% did not perform any physical exercise. The most frequent menopausal symptoms referred were muscle and joint ailments (85%) followed by mental and physical exhaustion (80%). Sedentary women, smokers or those who did not have time for leisure activities showed worst quality of life scores. Postmenopausal women with unhealthy lifestyles had the lower quality of life scores and more menopausal symptoms²¹.

Women face lot of challenges during menopause. The symptoms experienced by the menopausal women may affect their quality of life. Considerably large number of women will lead one third of their life in the postmenopausal stage. It necessitates a need to understand and address the concerns of the postmenopausal women in a better and sophisticated way to help such women lead a healthy and happy life.

CONCLUSION

The current study results showed that, high percentage scores of physical symptoms such as hot flushes(72%) , sweating (71.5%), backache(67.5%), muscle pain(67%),

and psychological symptoms such as lack of energy(63%), forgetfulness(61.5%), decrease in concentration(60%) were reported by the postmenopausal women. The post menopausal women experienced fair quality of life due to their physical and psychological symptoms. The menopausal symptoms negatively affected the quality of life of postmenopausal women.

CONFLICT OF INTEREST

The authors declare that they have no conflict of interest.

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