

An Observational study on coping and quality of life among perimenopausal women

ABSTRACT:

Background: Perimenopause is a natural phenomenon signaling the reduction of ovarian function. Worldwide, the age at which natural menopause occurs is between 45 to 55 years. Many women during the premenopausal age group may experience menopausal symptoms such as physiological changes, psychological changes, urogenital changes, sexual changes and vasomotor changes. These changes and symptoms the women may have negative impact on Quality of Life among perimenopausal women. The main aim of the study was to assess the coping and quality of life among perimenopausal women. **Materials and Methods:** The researcher has used a quantitative research approach and convenient sampling technique was adapted to select 165 perimenopausal women with the age group of 40 to 55 years. Researcher assessed the perimenopausal symptoms, observed the coping and quality of life among perimenopausal women by Greene climacteric scales, modified cope inventory scale and Utian quality of life scale respectively. The study was conducted in Poonjeri, Kadampadi, and Perumalari villages from Chengalpattu District, for the period of four weeks. **Results:** There was a positive correlation between cope and quality of life among perimenopausal women. **There is no association was observed between the monthly income and quality of life of the perimenopausal women**, as the Chi-square test was statistically significant at $p < 0.05$. **Conclusion:** The study concludes that the perimenopausal women who are participated in this study have moderate symptoms, moderate coping, and moderate quality of life. The monthly income was effective in influencing the perimenopausal women's quality of life.

Key words: *Observational study, Coping, quality of life, perimenopausal women.*

INTRODUCTION:

Menopause is a natural event signalling the reduction of ovaries function and the onset of last menstrual period and it was generally diagnosed in retrospect, since confirmation occurs only after a 12-month cessation of menstrual periods.^[1] Perimenopause, is the transition period prior to the last menstrual cycle, when a woman may experience variable or irregular menstrual cycles and hormonal fluctuations, and includes the period of 12 months after the final menstrual period.^[2] **Menopause is the final stage of perimenopause and is complete after 12 months of amenorrhoea. This final stage is associated with a decrease in ovarian secretion of estrogens and progesterone.**^[2] Postmenopausal is defined as the stage beginning 12 months after the last menstrual cycle.^[3] Worldwide, the age at which natural menopause occurs is between 45 to 55 years.^[3] **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. Women in perimenopausal age group experience physiological changes, which takes place comprehensively in all women when they reach midlife.**^[4] World Health Organization (WHO) Scientific Group 2013

reported that more than 25 million women have reached menopause worldwide in 1990 and the number would double by 2020. ^[5] According to Vijayalakshmi S, reported that there are about 65 million Indian women over the age of 45 and an average age of menopause in around 48 years. But in Indian women it strikes at younger age 30-35 years. ^[6] The perimenopause and menopause transition may be viewed as a problematic period of menstruation, beginning with perimenopausal changes of hormones in females may begin with the common degenerative process of aging, which includes the possibility of cardiovascular disease, diabetes, and osteoporosis among other diseases, but medically the 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 women's life. The women suffer from one or more number of menopausal symptoms. Such as nearly 43 per cent with vaginal irritation/discharge, about 39 per cent of them ever subjected themselves to treatment. Around 63 per cent were on calcium supplements. ^[7] In this study report by WHO, which states that hot flushes are more prevalent in European and North American populations as compared to Asians.

Material and Methods:

A quantitative research approach was used to assess the coping and quality life among perimenopausal women. Descriptive design was found to be appropriate for the study.

The study was carried out on the women who are subjected to perimenopausal symptoms in Poonjeri, Kadampadi, and Perumalari villages from Chengalpattu district, Tamil Nadu, India. The population comprises of perimenopausal women in the reproductive age group between 40-55 years.

Perimenopausal women in the age group of 40-55 who fulfils the inclusion criteria at selected villages, Chengalpattu district, Tamil Nadu, India. The following inclusion criteria were selected as women with the symptoms of perimenopause women in the age group of 40-55years.

The following exclusion criteria were not selected as Women with history of any apparent medical or psychiatric illnesses at the time of interview, Women with the history of poly cystic ovaries, Women with the history of dysfunctional uterine bleeding, Women who had undergone surgical menopause (Hysterectomy), Women who were not willing to give a written consent to participate in the study.

A Convenient sampling technique was used to ascertain the perimenopausal women. **The sample size for the main study was calculated by using the formula is $n = [Z\alpha/2]2pg/d2$ and estimated sample size was 165 perimenopausal women.**

The study was conceptualization based on **"Helping Art of Clinical Nursing Theory"** by Ernestine Wiedenbach. The conceptual model describes mental imaginary perception of the overall statement about concepts of the study. This theory consists of following aspects Central purpose, Prescription, Realities, (identification) Identifying the need for help, (ministration) Ministering the need for help, and (validation) validating the need for help to meet. The nurse investigator incorporates this theory, which represents schematic presentation in relationship with the perimenopausal symptoms, coping, and quality of life perimenopausal women.

Data collection was begun after appropriate ethical clearance from the IHEC (Institutional Human Ethics Committee) and informed consent by each individual participants.

Data collection procedure:

The investigator went to the selected villages approached village head and presented her to respondents to ascertain their cooperation for the study. The period was four weeks from 26-11-2019 to 27-12-2019. Then the investigator collected the demographic data from the samples by using structured interview questionnaire after **obtaining informed written consent after explains the study.**

Structured interview questionnaire had closed ended questions to elicit the information on demographic data such as age, educational status, occupation, and monthly income of

perimenopausal women. After collecting the demographic data, the researcher assessed the perimenopausal symptoms by standardized Greene Climacteric Scale were used in Interview method among perimenopausal women. The coping of women by using modified cope inventory scale. Followed by Utian quality of life scale was used to assess the quality of life among perimenopausal women.

Research Instruments

Standardized Greene Climacteric Scale The tool consisted of 23 items to elicit the quality of life of women about occupational, health, emotional and sexual. The tool consisted of 21 items which include 11 psychological items, 7 Physical items, and 3 vasomotor items to elicit the menopausal symptom of the women. Each item was given direct score of 0 to 3 respectively. The highest rating of 3 represents of severe symptoms. The score range for the 21-item Greene climacteric will vary from a minimum of 21 to a maximum of 63. The levels of climacteric symptoms categorized in to Mild symptoms score was 0-21(0-33%), Moderate symptoms score was 22-42 (34-66%), and Severe symptoms score was 43-63 (67-100%).

Modified cope inventory scale The tool consisted of 26 items to elicit the coping of women about positive reinterpretation and growth, mental disengagement, focus on and venting of emotions, use of instrumental social support, denial, active coping, restraint, use of emotional social support, religious coping, humor, behavioral disengagement, substance use, acceptance, suppression of competing activities, planning. Each items in the modified cope inventory scale given direct score of 1 to 4 respectively. The highest rating of 4 represents of adequate coping. The score range from the 26-item cope inventory will vary from a minimum of 26 to a maximum of 104. The level of Modified Cope Categorized in to Inadequate coping score was 26-51(25-49%), moderately adequate coping was 52-77 (50-74%), and adequate coping was 78-104 (75-100%).

Utian quality of life scale: The tool consisted of 23 items to elicit the quality of life of women about occupational, health, emotional and sexual. Each item in the Utian quality of life scale given direct score of 1 to 5 respectively. The highest rating of 5 represent of adequate quality of life. The score range for the 23-item Utian quality of life will vary from a minimum of 23 to a maximum of 115. The Utian Quality of Life Scale was categorized in to Inadequate quality of life score was 23-53<46%, Moderately adequate quality of life score was 54-84(47-73%), and adequate quality of life score was 85-115(74-100%).

RESULTS:

The study findings help to identify the family monthly income by the perimenopausal women. The percentage distribution of perimenopausal women in reference to their family monthly income approximately 54.5 per cent of perimenopausal women had their family monthly income of Rs. 11,708 to Rs. 19,515, 24.20 per cent of perimenopausal women had their family monthly income of Rs. 19,516 to Rs. 29,199 and 6.70 per cent had their monthly income of Rs. 29,200 to Rs.39,032.

The frequency and percentage distribution of perimenopausal symptoms among perimenopausal women was noticed that majority, 65.50 per cent of perimenopausal women had moderate symptoms,

25. 50 per cent of perimenopausal women had severe symptoms and 9.10 per cent of perimenopausal women had mild symptoms.

The frequency and percentage distribution of coping among perimenopausal women was about 33.90 per cent, 66.10 per cent of perimenopausal women had inadequate coping, moderately adequate coping respectively where as no one had adequate coping. Mean and standard deviation of coping among perimenopausal women was 79.19±7.836 which fall in the category of adequate coping.

Frequency and Percentage distribution of Quality of Life among perimenopausal women was about 22.40 per cent, 77 per cent of perimenopausal women had inadequate Quality of Life, moderately adequate Quality of Life respectively whereas 0.60 per cent of perimenopausal woman had adequately Quality of Life.

Table 1. Association of Coping and Quality of Life with the Selected Demographic Variables among Perimenopausal Women.

S. No	Demographic Characteristics		Coping Strategies among Perimenopausal Women				Chi Square
			Moderately Adequate Coping (52-77)		Adequate Coping (78-104)		
			Frequency	%	Frequency	%	χ^2 -Value P=0.05
1	Age	40-45 years	34	60.7	74	67.9	1.519 NS
		46-50 years	22	39.3	34	31.2	
		51-55 years	0	0.0	1	0.9	
2	Educational status	Primary	40	71.4	75	68.8	5.128 NS
		Secondary	5	8.9	4	3.7	
		Graduate	2	3.6	1	0.9	
		Illiterate	9	16.1	29	26.6	
3	Occupational status	House Wife	54	96.4	107	98.2	0.472 NS
		Private Employee	2	3.6	2	1.8	
4	Monthly income	> 78,063	3	5.4	0	0.0	38.885 S **
		39,033-78,062	4	7.1	4	3.7	
		29,200-39,032	10	17.9	1	0.9	
		19,516-29,199	6	10.7	34	31.2	
		11,708-19,515	24	42.9	66	60.0	
		3,908-11,707	8	14.3	4	3.7	
		< 3,907	1	1.8	0	0.0	

**Significant at p <0.05 NS-Not Significant

Table 1: Explains the association between coping among perimenopausal women with the selected demographic variables such as Age, education, occupation, and monthly income. Demographic variable such as monthly income had association with the coping among perimenopausal women $\chi^2 = 38.885(P<0.05)$.

Table 2: Associations of Selected Demographic Variables with Quality of Life among Perimenopausal Women
N=165

S.No	Demographic Characteristics		Quality of Life among Perimenopausal Women						Chi square
			Inadequate Quality of Life		Moderately Adequate Quality of Life		Adequate Quality of Life		
			Frequency	%	Frequency	%	Frequency	%	χ^2 -Value P<0.05
4	Monthly Income	> 78,063	0	0.0	3	2.4	0	0.0	21.33 S**
		39,033-78,062	1	2.7	7	5.5	0	0.0	
		29,200-39,032	5	13.5	6	4.7	0	0.0	
		19,516-29,199	8	21.6	32	25.2	0	0.0	
		11,708-19,515	19	51.4	71	55.9	0	0.0	
		3,908-11,707	3	8.1	8	6.3	1	100.0	
		< 3,907	1	2.7	0	0.0	0	0.0	

**Significant at p <0.05 NS-Not Significant

Table 2 communicates the association between Quality of Life among perimenopausal women with the selected demographic variables like monthly income had association with the Quality of life among perimenopausal women χ^2 - Value =21.336 (P < 0.05) All the other demographic variables such as Age, education, occupation had no association with the Quality of Life where.

DISCUSSION:

The statistically significant findings of the study concludes that 65.1 per cent, 33.7 per cent and 0.6 per cent of perimenopausal women belonged to the age group of 40-45 years, 46-50 years and 51-55 years respectively and the mean age of the perimenopausal woman was 44.07 years, A similar study on Quality of life among perimenopausal women revealed that the mean age of the perimenopausal woman was 48.30 years. [8] With regard to occupational status and monthly income, approximately 97.6 per cent of perimenopausal women were housewives, and majority (54.5 per cent) of perimenopausal women had their family monthly income of Rs. 11, 708 to Rs. 19,515 rupees. A similar study on A cross sectional study for assessment of menopausal symptoms and coping strategies among the women of 40-60 years age group revealed that 110 (73.3 per cent) had secondary or less years of schooling, Majority 77 (51.3 per cent) of the participants were house wives and 116 (77.3 per cent) belongs to middle class had a monthly income in between 5000-12000 per capital. [9] It was noticed that majority, 65.50 per cent of perimenopausal women had moderate symptoms, 25.50 per cent of perimenopausal women had severe symptoms and 9.10 per cent of perimenopausal women had mild symptoms which were measured by Green Climacteric Scale. A Similar study on perimenopausal syndrome and mood disorders in perimenopause found that, 92 per cent, 65.50 per cent, and 25.50 per cent of perimenopausal women had mild, moderate symptoms, and severe symptoms. [10] Moreover, 33.90 per cent, 66.10 percent of perimenopausal women had inadequate coping, moderately adequate coping respectively which was measured by Modified Cope Inventory Scale. The mean coping was 79.19 which fall in the category of adequate coping and standard deviation was 7.836. Majority (77 per cent) of perimenopausal women had, moderately adequate quality of life, 22.40 per cent of perimenopausal women had inadequate quality of life.

Whereas, only 0.60 per cent of perimenopausal woman had adequately quality of life. The mean quality of life among 165 perimenopausal women was 58.04 which fall in the category of moderately adequate quality of life and standard deviation was 7.794.

A similar cross-sectional study on the prevalence of menopausal symptoms among middle aged female teachers in schools of Raipur city found that the majority of the female's quality of life were found to be affected with different grades of menopausal symptoms.^[11] The correlation coefficient between coping and quality of life among perimenopausal women projects no correlation $r = 0.053$ ($P = 0.46$). So the research hypothesis was rejected. A similar study on Prevalence of Postmenopausal Symptoms, Its effect on quality of life and coping in rural couple revealed that all those with menopausal symptoms also had their QOL affected from mild-to-moderate extent and Couples were found to be aware of menopause, however, the symptoms arising as consequence of it seem to be accepted as natural age-related changes. This could possibly account for not taking any active coping strategy despite reporting of mild-to-moderate botheration by women.^[12] That there was statistically significant association of monthly income with the coping $\chi^2 = 38.885$ ($P < 0.05$) and quality of life χ^2 -Value = 21.336 ($P < 0.05$). All the other demographic variables such as Age, Educational status and Occupation had no significant association with coping and quality of life. A similar study on coping strategies adopted by menopausal women residing in selected areas in India found that there is an association between demographic variable as monthly family with coping strategies adopted by menopausal women at 0.05% level of the significance.^[13]

The discussion concludes that the moderate level of menopausal symptoms were identified among perimenopausal women and their mean age is 44 years and majority of perimenopausal women had moderately adequate coping and quality of life, which in turn showed that no correlation between coping and quality of life. As it reveals that the premenopausal women aware of menopause however, many studies reported that menopausal women had significance of psychological issues so it is very important to teach them coping strategies which make them lead adequate quality of life.

CONCLUSION

During the menopausal time most of the women experience the menopausal symptoms. These symptoms may affect their quality of life among perimenopausal women. This study was taken up to assess the coping and quality of life among perimenopausal women. It was proven that the perimenopausal women had moderately adequate coping and moderately adequate quality of life. It necessary needs to understand and address the concerns of menopausal women in a better way to help such women lead a healthy and happy life.

ETHICAL APPROVAL:

The study was approved by the Institutional Human Ethics Committee. Trial Registration No: CTRI/2019/11/021986

REFERENCES:

1. Engida Yisma, Natnael Eshetu, Stephanie Ly. Prevalence and severity of menopause symptoms among perimenopausal and postmenopausal women. *BMC Women's Health*. 2017; 1(7): 124. Doi: 10.1186/12905-017-0484.
2. Brinton RD, Yao J, Yin F, Mack WJ, Enrique Cadenas. Perimenopause as a neurological transition state. *Journal of Nature Reviews Endocrinology*. 2015;11 (7):393–405. doi: 10.1038/nrendo.2015.82.
3. Hoffman BL, Schorge JO, Bradshaw KD, Halvorson LM, Schaffer JI, Corton MM. *Williams Gynecology*. New York: McGraw-Hill Education Medical. 2016; (3):471-491.
4. John F. Randolph, Huiyong Zheng, Nancy E. Avis, Gail A. Greendale. Masturbation frequency and sexual function domains are associated with serum reproductive hormone levels across the menopausal transition. *The journal of clinical endocrinology and metabolism*. 2015; 100(1):258-266. DOI: 10.1210/jc.2014-1725 .

5. Sumathi Senthilvel, Senthilvel Vasudevan, PS Anju, AnjanaSukumaran, Jayanthi Sureshbabu. Assessment of symptoms and quality of life among postmenopausal women in a tertiary care hospital in Kochi, South India. *Journal of mid-life health*. 2018; 9 (4) : 185-190
DOI: 10.4103/jmh.JMH_98_18.
6. Vijayalakshmi S, Ramesh Chandrababu & Eilean Victoria L. Menopausal transition among northern Indian women. *Nitte University Journal of Health Science*. 2013; 3(2):2249- 7110.
<https://www.researchgate.net/publication/268218400>.
7. Sagar A, Borker, P. P. Venugopalan, and Shruthi N. Bhat. Study of menopausal symptoms, and perceptions about menopause among women at a rural community in Kerala. *Journal of mid-life health*. 2013 ; 4(3): 182–187. doi: 10.4103/0976-7800.118997.
8. Nayak G, Kamath A, Kumar P, Rao A. A study of quality of life among perimenopausal women in selected coastal areas of Karnataka, India. *J Midlife Health*. 2012; 3(2):71-75. doi: 10.4103/0976-7800.104456.
9. Anil K Agarwal, Nirmala Kiron, Rajesh Gupta, Aditi Sengar. A Cross Sectional Study for Assessment of Menopausal Symptoms and Coping Strategies among the Women of 40-60 Years Age Group Attending Outpatient Clinic of Gynaecology. *International Journal of Medicine and Public Health*, 2019; 9(1):13-19. DOI:10.5530/ijmedph.2019.1.4
10. Rui-xia Li, Min Ma, Xi-rong Xiao. et al. Perimenopausal syndrome and mood disorders in perimenopause: prevalence, severity, relationships, and risk factors. *Medicine (Baltimore)*. 2016; 95(32):e4466. doi: 10.1097/MD.0000000000004466.
11. Madhu Gaikwad, Shubhra Agrawal Gupta, Mini Sharma, NirmalVerma, and Shweta Shalini. A cross-sectional study to assess the prevalence of menopausal symptoms among middle aged female teachers in schools of Raipur city. *International Journal of Community Medicine and Public Health*. 2020; 7(4):1560-1564. DOI: <http://dx.doi.org/10.18203/2394-6040.ijcmph20201474>.
12. Radha Shukla, Jaishree Ganjiwale, Rakhee Patel . Prevalence of Postmenopausal Symptoms, Its Effect on Quality of Life and Coping in Rural Couple. *Journal of mid- life health*. 2018; 9 (1):14-20. DOI: 10.4103/jmh.JMH_34_16.
13. Dipali Ingale. A study on coping strategies adopted by menopausal women residing in selected areas. *International Journal of Advanced Scientific Research*. 2019; 4(3):26-28.