

EFFECT OF NURSING INTERVENTIONAL PACKAGE ON QUALITY OF LIFE OF PERIMENOPAUSAL WOMEN RESIDING IN A RURAL COMMUNITY

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ABSTRACT

Menopause affects the vast majority of women (almost 90%) between the ages of 45 and 50; it affects only around 5% of those between the ages of 40 and 45 and about 5% of those above the age of 50. The objective to evaluate the effect of interventional package on quality of life of perimenopausal women. Quasi experimental pre-test, post-test control group design research was conducted at women self-help groups functioning under Khankra and Garda Gram Panchayats of Baran district of Rajasthan. A Total of 40 perimenopausal women were chosen at randomly for the purpose of study quality of life was assessed using the Specific Quality of Life Questionnaire. The data were gathered both before and 1 month 3 month and 6 months after the administration of interventional package. The majority of research participants in the experimental group (40%) and control group (0.00%) were, respectively, between the ages of 46 and 50. Most of the women in the experimental group (40%) and control group (40%) had only finished secondary education. Sixty percent of the subjects in the experimental group and eighty percent of the subjects in the control group were homemakers. Both the control group (75%) and the experimental group (70%) were made up primarily of Hindus. While 70% of participants in the control group were from nuclear households, nearly two thirds (70%) of those in the experimental group were. 50% of the women in the experimental group and 75.00% of the women in the control group earned between Rs. 6000 and Rs. 10,000 per month from their households. In the experimental group, 20% of the women reported a monthly household income between Rs. 10001 and Rs. 20,000, while 15% of the

control group provided the same information. Significant reduction was noted in the mean score of Quality of life in experimental group at 1st post test ($p < 0.001$), 2nd ($p < 0.001$) and 3rd posttest ($p < 0.001$) as compared to pretest score. The difference observed in the scores on repeated measurements was found statistically significant ($p < 0.001$) in the group. As per the scoring system of MEN QOL questionnaire lower score indicate better quality of life. Hence it is interpreted that there was significant improvement in Quality of life of women when measured at all the three post tests as compared to pretest. The study findings indicated that certain interventions might be employed to improve the quality of life of perimenopausal women. Following the application of the interventions to a wider sample, the results might be generalized.

Keywords: Interventional package; Menopause related problems; Quality of life(QoL); Perimenopausal women

INTRODUCTION

From the standpoint of a woman's health, it is crucial to take into account all aging facts. Menopause is among these aspects that is most crucial. Menopause affects the vast majority of women (almost 90%) between the ages of 45 and 50; it affects only around 5% of those between the ages of 40 and 45 and about 5% of those above the age of 50.¹

In the modern day, where life expectancy has grown, women are more prone to experience prolonged menopausal periods that last around a third of their lives.² Menopausal symptoms significantly affect a woman's quality of life at various stages of the menopause.³

According to studies by the Indian Menopause Society, there are approximately 65 million Indian women over the age of 45. It is predicted that by 2026, when India's population is expected to reach 1.4 billion, there would be 103 million menopausal women living in the country.⁴ Due to improving economic situations, quick lifestyle changes, and greater longevity, menopausal and postmenopausal health have become a significant public health problem in India under current demographic trends.⁵

Menopausal women are one of the most understudied groups, and there is little research on their quality of life in the Indian context.⁶ The main problem menopausal women experience is a lack of awareness and access to pertinent information, which is made worse by conflicting information.⁷ Most of them do not seek advice because they do not know better and view menopause as a normal part of aging, while being affected by symptoms.⁸ The value of self-care and how the menopause is seen can both be improved with empowerment.⁹ Interventions that use effective learning techniques to raise postmenopausal women's knowledge, enhance their ability to cope with menopause symptoms, and ultimately advance their quality of life (QOL) are crucial.¹⁰

Despite the fact that numerous therapies have been tested to treat menopausal symptoms, no single intervention has been shown to be successful in reducing menopausal symptoms. Empowering techniques must be adapted to each participant's unique requirements, traits, and sociocultural environment in order to better assist women in understanding and coping with the menopause's unavoidable obstacles.¹¹ Therefore, the purpose of this study is to determine whether the Interventional Package, which combines empowerment via education and a supervised exercise program, is beneficial in addressing menopause-related issues and improving the quality of life for perimenopausal women.

METHODS AND MATERIALS:

Data were collected between February 2022 and November 2022 after receiving administrative approval from the relevant authorities. Using inclusion criteria, the individuals were assigned to the experimental (n =20) and control (n =20) groups. The women were assessed for the presence of menopause-related issues using a structured menopausal symptom checklist. Using a standardized questionnaire, socio-personal, menstrual, and health-related data were gathered. At baseline, one month, three months, and six months after intervention, the Menopause Specific Quality of Life Questionnaire was used to assess quality of life.

The experimental group received the interventional package. The first stage of the intervention was a 45-minute educational session covering a structured teaching program on menopause, which was followed by a demonstration of stretching and strengthening exercises and a follow-up demonstration. The demonstration and return demonstration sessions each lasted for a full 30 minutes. The exercises included stretching the back muscles while seated, strengthening the flexion and extension of both shoulders while standing, strengthening the abduction and extension of both shoulders, strengthening the extension of both forearms while standing, strengthening the extension of both knees while sitting, and strengthening the dorsiflexion of both ankles while sitting. Ten to twelve repetitions were performed for each exercise. Sand bags were employed on either side of a 1 kg weight for the strengthening exercises.

The exercise program, which made up the second component of the interventional package, involved the individuals exercising for 30 minutes per day, four days per week, for a period of 12 weeks, while the researcher observed them as they performed specific stretching-strengthening exercises for various body regions.

Source of data:

The data was collected from perimenopausal women age between 40- 55 years.

Research Approach:

Quantitative research approach was adopted for the study.

Research Design:

Quasi experimental pre-test, post-test control group design was adopted for the study.

Research setting:

The pilot study was conducted in selected women self-help groups functioning under Khankra and Garda Gram Panchayats of Baran district of Rajasthan state.

Population:

The population for the pilot study selected was perimenopausal women age between 40- 55 years.

Method of data collection:**Sampling procedure:**

The sampling technique was adopted for this study is purposive sampling technique.

Sample size:

The sample size is 40 perimenopausal women.

Inclusion Criteria:

- Woman in perimenopausal period.
- Woman undergoing natural menopause transition.
- Woman with at least two menopause related problems for the last one-month preceding data collection as identified by structured menopause symptom check list. Woman between the age group of 40-55 years.
- Woman willing to participate in the study.
- Woman who is an active member of women self-help group at the selected panchayats.
- Woman who is able to read, write and understand Hindi.

Exclusion criteria:

- Woman attained premature menopause.
- Woman attained artificial menopause following hysterectomy or radiation.
- Woman with major medical disorders that incapacitate her to participate in the study including renal, cardiac, hepatic, orthopedic and cerebral/ neuro pathology.
- Woman who perform regular exercise for at least four days per week.
- Woman with psychiatric illness.
- Woman who is currently on regular treatment for menopause related problems.
- Women who failed to attend all the sessions of the Interventional package and followed up to six month.

Main study: Main study will be conducted on 200 sample

RESULTS

Table 1. Distribution of perimenopausal women based on Socio personal characteristics (n=40)

Socio personal characteristics		Experimental group n ₁ =20		Control group n ₂ =20	
Age in years	Mean±SD	47.88±3.87		48.53±3.45	
	40-45	8	40.00	7	35.00
	46-50	6	30.00	8	40.00
	51-55	6	30.00	5	25.00
Education qualification	Primary/illiterate	4	20.00	4	20.00
	Secondary	8	40.00	8	40.00
	Higher secondary	2	10.00	4	20.00
	Collegiate	06	30.00	4	20.20
Occupation	Home maker	12	60.00	16	80.00
	Employed	08	40.00	04	20.00
Religion	Hindu	14	70.00	15	75.00
	Christian	2	10.00	2	10.00
	Muslim	4	20.00	3	15.00
Type of family	Nuclear family	14	70.00	14	70.00
	Joint family	4	20.00	4	20.00
	Extended family	2	10.00	2	10.00
Family income per month (in Rupees)	<6000	3	15.00	1	5.00
	6000-10000	10	50.00	15	75.00
	10001-20000	4	20.00	3	15.00
	>20000	3	15.00	1	5.00

The majority of research participants in the experimental group (40%) and control group

(0.00%) were, respectively, between the ages of 46 and 50. The mean age of the women in the experimental group was 47.88 ± 3.87 , whereas it was 48.53 ± 3.45 , in the control group. Most of the women in the experimental group (40%) and control group (40%) had only finished secondary education. Sixty percent of the subjects in the experimental group and eighty percent of the subjects in the control group were homemakers. Both the control group (75%) and the experimental group (70%) were made up primarily of Hindus. While 70% of participants in the control group were from nuclear households, nearly two thirds (70%) of those in the experimental group were. 50% of the women in the experimental group and 75.00% of the women in the control group earned between Rs. 6000 and Rs. 10,000 per month from their households. In the experimental group, 20% of the women reported a monthly household income between Rs. 10001 and Rs. 20,000, while 15% of the control group provided the same information.

Table 2. Distribution of subjects based on menopause and health characteristics(n=40)

Menstrual and health characteristics		Experimental group (n ₁ =20)		Control group (n ₂ =20)	
		f	%	f	%
Menopause status	Premenopausal	11	55.00	12	60.00
	Early post-menopausal	9	45.00	8	40.00
Age at menopause among postmenopausal women (n=26)	Mean \pm SD	48.27 \pm 1.15		48.28 \pm 1.22	
	\leq 46	2	10	3	15
	47-49	16	80.00	14	70
	\geq 50	2	10	3	15
Medical help seeking behaviour for menopause related problems	Yes	8	40	7	35.00
	No	12	60	13	65.00
History of Premenstrual syndrome	Yes	9	45.00	8	40.00
	No	11	55.00	12	60.00

Body Mass Index(BMI)	18.5-24.99	8	40.00	7	35.00
	25-29.99	8	40.00	9	45.00
	30	4	20.00	4	20.00s

In comparison, a greater percentage of participants in the experimental group (45%) and control group (40%) were classified as early postmenopausal. The experimental group's mean age at menopause was 48.27 ± 1.15 , while the control group's was 48.28 ± 1.22 . Between the ages of 47 and 49, the majority of participants in the experimental group (80%) and control group (70%) reached menopause. Merely 40% of the experimental group and 35% of the control group had consulted a doctor for issues connected to menopause. Forty percent of the women in the control group and forty percent of the women in the experimental group had a history of premenstrual syndrome. The BMI ranged from 25 to 29.99 for 40% of the women in the experimental group and 45% of the subjects in the control group.

Table 3. Between the group comparison of mean score of Quality of Life for the experimental and control group

Assessment period	Experimental group (n ₁ =20) mean ± SD	Control group (n ₂ =20) mean ± SD	t statistic (df=101)	p value
At Baseline	105.98±24.09	102.47±22.36	1.17	0.23
Posttest-1(One month)	92.7±19.05	101.79±19.99	2.73	0.01**
Posttest-11 (Three months)	98.08±18.21	103.96±20.14	0.97	0.32
Posttest-111 (Six months)	97.64±18.99	102.17±19.55	0.88	0.36

Level of significance P<0.01**

The mean Quality of Life score at baseline assessment did not significantly differ between the experimental group (105.98±24.09) and control group (102.47±22.36) (p=0.24). After a month, the experimental group's Quality of Life score (92.7±19.05) was significantly lower than the control group's (101.7±19.99) at the one-month mark. The initial post-test score difference between the two groups was determined to be statistically significant (P=0.01). The experimental group's mean score at the second and third post-test was found to be lower than the control group's, but this difference was not

statistically significant ($p > 0.05$). A higher score on the MENQol Questionnaire denotes a lower quality of life, according to its scoring system. Therefore, it is expected that the experimental group's quality of life greatly increased at the first post-test compared to the control group's.

Table 4. Pair-wise comparison of mean score of Quality of Life with each observation for the experimental group

Time interval	Mean difference	Standard Error	t-value	p-value	Repeated measurements ANOVA
Baseline Vs. One month	14.28	1.31	11.62	<0.001***	F=46.80 P<0.001* **
Baseline Vs. Three month	6.90	1.61	4.94	<0.001***	
Baseline Vs. Six month	6.34	1.70	4.27	<0.001***	
One month Vs. Three month	-8.38	1.02	7.14	<0.001***	
One month Vs. Six month	-8.94	1.03	7.85	<0.001***	
Three month Vs. Six month	-0.54	0.83	0.67	0.48	

Level of significance $P < 0.05^*$, $p < 0.01^{**}$, $p < 0.001^{***}$

Significant reduction was noted in the mean score of Quality of life in experimental group at 1st post test ($p < 0.001$), 2nd ($p < 0.001$) and 3rd posttest ($p < 0.001$) as compared to pretest score. The difference observed in the scores on repeated measurements was found statistically significant ($p < 0.001$) in the group. As per the scoring system of MEN QOL questionnaire lower score indicate better quality of life. Hence it is interpreted that there was significant improvement in Quality of life of women when measured at all the three post tests as compared to pretest.

Table 5: Pair-wise comparison of mean score of Quality of Life with each observation for control group

Time interval	Mean difference	Standard Error	t-value	p-value	Repeated measures ANOVA
Baseline Vs.One month	-1.34	0.53	2.42	0.07	F=1.7 2 P=0.1 6
Baseline Vs.Three month	-1.48	0.94	1.62	0.11	
Baseline Vs.Six month	-1.72	0.76	2.22	0.03*	
One month Vs.Three month	-0.18	0.78	0.20	0.83	
One month Vs.Six month	-0.36	0.71	0.52	0.60	
Three month Vs.Six month	-0.22	1.11	0.19	0.85	

Level of significance $P < 0.05^*$

The third posttest at six months and the baseline assessment's mean scores were compared, and the results showed a significant difference ($p=0.03$) because the control group's quality of life had significantly declined over time. It was determined that there was no statistically significant difference ($p=0.16$) between the group's scores on the repeated assessments.

DISCUSSION

The result is consistent with other trials' conclusions on this subject. According to Teoman et al.'s interventional study (2012), postmenopausal women's quality of life could be enhanced by a regular, six-week controlled exercise program. Elavsky¹³ discovered a relationship between physical activity and menopausal symptoms and physical self-worth and positive effect. Consequently, higher levels of menopause-related quality of life were linked to higher levels of physical self-worth and positive effect. Similarly, Nikpour and Haghani¹⁴ discovered that post-menopausal women in the experimental group saw a substantial increase in their quality of life after engaging in five times a week for eight weeks in a sub-maximum aerobic exercise program. This conclusion is further supported by an additional experimental investigation that examined the impact of a twelve-week endurance exercise program on the quality of life of 175 menopausal women.¹⁵ Similar findings were made by McAuley et al. (16) who observed that physical activity in older women indirectly affects global QoL through the mediation of self-efficacy and physical and mental health status. The results of this study support those of Keefer et al.¹⁷, who observed that the study group's quality of life improved after receiving information about menopause symptoms and coping mechanisms, while the

controls experienced some worsening as a result of the progressive nature of climacteric difficulties. A quazi experimental study¹⁸ also found that menopausal women in the experimental group experienced a significant improvement in their health-related quality of life after a 12-month program of cardiorespiratory, stretching, muscle-strengthening, and relaxation exercises, while their quality of life significantly declined in the control group. Similarly, a study by Forouhari et al.¹⁹ indicated that an educational intervention improved post-menopausal women's quality of life when it was evaluated three months after the intervention. Over time, the control group participants' reduced quality of life can be explained by the fact that women's subjective well-being is directly impacted by the mounting load of physical and psychological suffering as well as issues related to ageing.

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