

To Assess the Utility of BASNEF Model on the Quality of Life among Perimenopausal Women in the Rural Community Setting

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Received on: 01 February 2023; Accepted on: 28 February 2023; Published on: 10 January 2024

ABSTRACT

Background: If the women are given information on care during menopause, it will help them to make informed health decisions, clear of the confusion they may be experiencing about menopause and take measures to promote her health.

Materials and methods: An interventional analytical research approach was considered to be most appropriate for this study. Quasi-experimental research design was used by the non-random sampling method 200 perimenopausal women were selected. A structured knowledge questionnaire, belief questionnaire, Likert scale, Checklist, WHOQoL-BREF quality of life scale, and satisfaction questionnaire were used for data collection. The analysis was done with the help of inferential and descriptive statistics was used to collect the data.

Results: The total score of the quality of life scale had significantly improved in the intervention group after the intervention was compared with the control group ($p < 0.050$). In addition, at the end of 3rd month, the mean scores of the model constructs (knowledge, attitude, subjective norms, and enabling factors) had significantly improved after the intervention group in comparison with the control group ($p < 0.050$).

Conclusion: The educational intervention based on BASNEF model improved the quality of life among perimenopausal women. This model constructs improved in the intervention group in comparison with the control group after the intervention.

Keywords: BASNEF model, Perimenopausal women, Quality of life.

Pondicherry Journal of Nursing (2023): 10.5005/jp-journals-10084-13177

HIGHLIGHTS

- A novel BASNEF model has been shown to be feasible and effective on the quality of life among perimenopausal women.
- This is the first conducted study in India which improved the QoL among perimenopausal women.

INTRODUCTION

Menopause is a normal physiological phenomenon in which women stop menstruating for at least 12 months as ovarian hormone production declines. As per the WHO, premenopausal females had regular monthly flow within a preceding 12 months, Periods were irregular or no menstruation for more than 3 months but less than a year for perimenopausal women, whereas no menstruation for more than a year was seen in postmenopausal women. Menopause happens naturally between the ages of 45 and 50.¹ In India, symptoms of menopausal with their influence on the QoL were observed to affect 87.7% of the rural middle-aged females in Haryana at 40–60 years of age. The study found that anxiety was the most prevalent In this study, the author finds need for education program based on BASNEF model (Knowledge, Belief, Attitude, Subjective Norms, and Enabling Factors) which will help to make awareness and knowledge regarding care during perimenopause and to prevent complications in menopause to improve the quality of life among perimenopausal women.^{1,2} An educational teaching program can be an effective and economical teaching aid. Considering all the above aspect, the investigator concluded that menopausal women need educational teaching program on perimenopausal care and to study the program's

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How to cite this article: Giri VB, Taksande V. To Assess the Utility of BASNEF Model on the Quality of Life among Perimenopausal Women in the Rural Community Setting. *Pon J Nurs* 2023;16(4):69–73.

Source of support: Nil

Conflict of interest: None

effectiveness on the level of depression and quality of life symptom, which occurs in 80% of the cases.^{3–6}

MATERIALS AND METHODS

Study Design and Setting

An interventional analytical research approach was considered to be most appropriate for this study. Outcome research helps to define the best practices in a real-time setting. Outcome research develops a systematic process to collect, quantify, and objectively verify the performance. Outcome research provides a method to assess the relative effectiveness of an alternative intervention.

Table 1: Intervention of BASNEF model

Phase	Hours	Content of the session
Phase 0: Initial assessment, familiarity with the groups, briefing the study to the groups	Starting session Day - 01 Time - 1 hour	Greeting, introducing the session facilitator and women to each other, and explaining the numbers and the structure of the educational sessions Signing the informed consent form
Phase 1: Assess the Beliefs and attitude towards menopause	Day - 02 Time - 30 minutes	Assessment of beliefs and attitude towards menopause with the help of tools like Likert, belief
Phase 2: Behavioral intention in BASNEF model	Day - 03 Time - 2 hours	Giving a short lecture on menopause and lifestyle modification to change the perimenopausal women beliefs and attitude and to motivate them to receive more information on care during menopause Definition and concept of perimenopause, premenopause and menopause, its causes and contributing factors Explaining the progressive and silent effects of menopause Explaining the effect of symptoms of perimenopause on the body and quality of life Explaining the care during various symptoms Presenting a list of investigations to be carried out in menopause Explaining about the hormone replacement therapy and their advantages and side-effects Explaining importance of diet and exercise in their life to improve quality of life A comparison between lifestyle modification and medical therapy Teaching the women's some practical methods of exercises

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Quasi-experimental research design was used.^{7,8} The study was conducted at rural areas of Wardha District. The researcher planned to conduct the study in two different areas of rural, that is, experimental group from one area and control group from the other (at least 10–12 km between control and experimental group). Data were collected from four villages of Wardha District.⁹

Objectives and Outcome Measures

The primary objectives of the study was to assess the existing quality of life among perimenopausal women in experimental and control group and secondary objective to evaluate the utility of BASNEF model among perimenopausal women after the first and the third month.¹⁰ The existing quality of life was assessed using the WHOQoL-BREF questionnaire, which is a self-administered questionnaire comprising 26 questions. Responses to questions are on a 1–5 Likert scale where 1 represents “disagree” or “not at all” and 5 represents “completely agree” or “extremely.” Domains scores are scaled in positive direction, that is, higher scores denote higher quality of life.¹¹ The mean score of items within each domain is used to calculate the domain score. The research study proposal was presented and approved in by Institutional Ethical Committee, DMIMS(DU)/IEC/2018-19/7346/A and Doctoral Research Committee, DMIMS/Ph.D. Regn/2018/248 of Datta Meghe Institute of Medical Sciences (Deemed to be university) Wardha.¹² The permission was obtained from higher authority of selected villages of Sawangi (Meghe) District Wardha before proceeding to data collection process. Data collection process carried out from 27.08.2021 to 13.12.2021. Throughout the study period, a total of 235 perimenopausal women were assessed for eligibility, out of which, 200 perimenopausal women who fulfilled the inclusion criteria were recruited for the study. From which 100 perimenopausal women were recruited in the experimental group and 100 perimenopausal women were recruited in control group. About 24 samples were dropped out for not fulfilling the inclusion criteria.^{13,14}

Sample Size

As the study was quasi-experimental, a sample size of 100 perimenopausal women was decided in each group. The perimenopausal women were selected by non-random sampling methods. Their doubts were clarified and informed written consent was taken from them. Each participant was given a code as there were multiple series of responses.^{15,16}

Procedure

Intervention of BASNEF model was given in five phases (Total 05 days and 07 hours per week). The data were collected three times at intervals of 1 month, respectively for three consecutive times. The planning was done for four groups (50 samples in each group) and selected four villages.^{17,18} Two villages were selected for the experimental group and two villages for the control group) (Table 1).

Plan for Data Analysis

The data analysis was planned based on the objectives. The demographic variables were analyzed in terms of descriptive statistics (Fig. 1 and Table 2).¹⁹

The investigator planned to analyze the data in the following manner:

- Demographic data were analyzed by using frequency, percentage and presented in the form of table and graphs.
- The frequency, percentage, and *t*-test were used to examine the data from the knowledge and quality of life before and after intervention.

Table 3 depicts the frequency and percentage-wise distribution of perimenopausal women according to their demographic variables. The distribution of perimenopausal women according to their age in years shows that in control group, majority of the 66% of the cases belongs to 46–50 years of age group followed by 21% of cases belonging to 40–45 years, and 13% belongs to 51–55 years of age group. In the experimental group, majority of the subjects

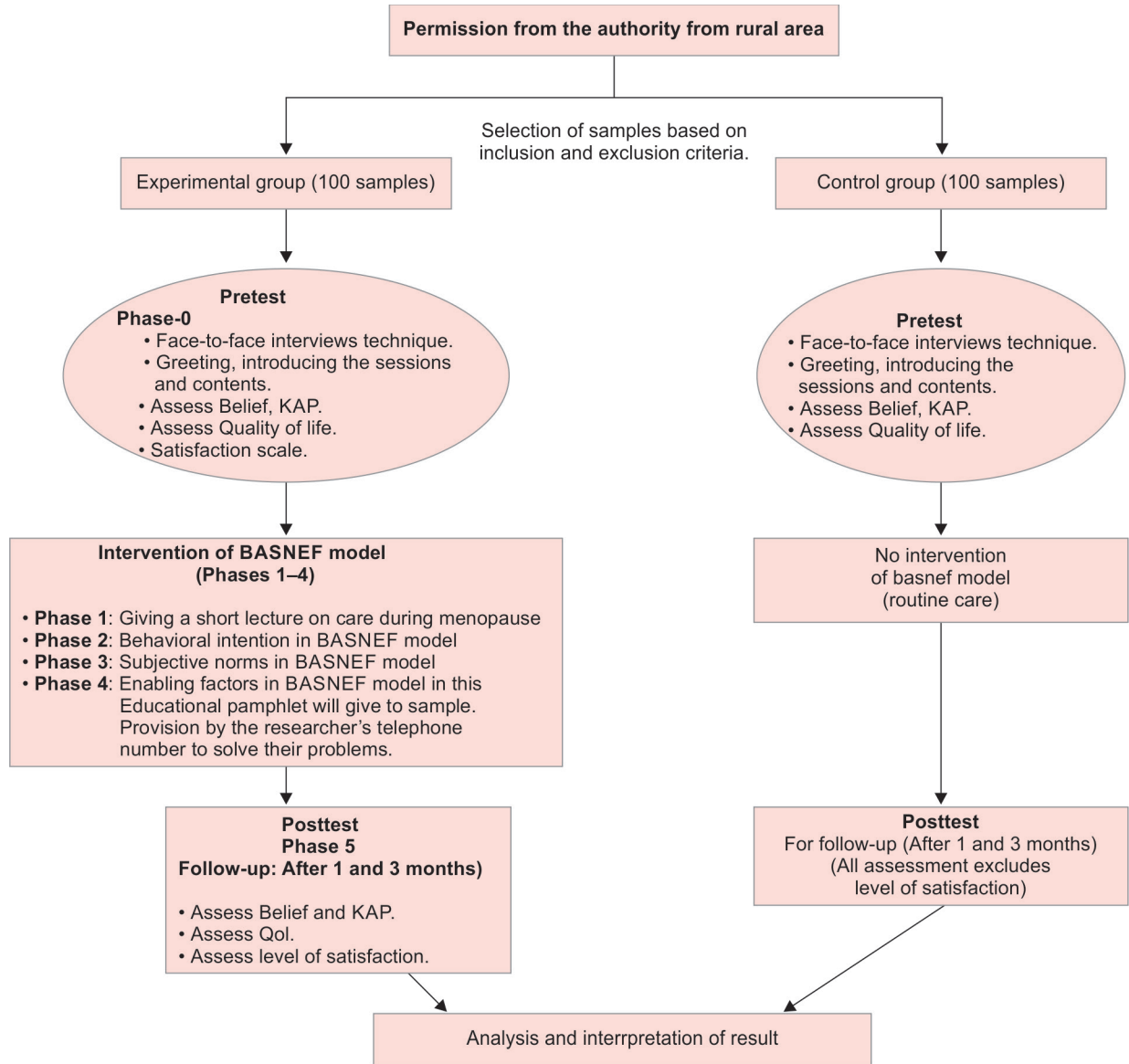


Fig. 1: CONSORT diagram

Table 2: Statistical tests used for this study

S.No.	Method	Test	Purpose
1	Descriptive	Frequency, percentage, mean, standard deviation	Assessment of the study variables
2	Inferential	Non-parametric Chi-square	Determination of homogeneity between groups and to associate the background variables with study variables
		Paired_t-test	Comparison of data within the group
		Unpaired_t-test	Comparison of data between the groups

(60%) belongs to 46–50 years of age group, followed by 23% of subjects belong to 51–55 years of age group and 17% belongs to 40–45 years of age group.^{20,21}

The above data conclude that majority of the subjects belongs to the 46–50 years of age group in the control and experimental group.

Distribution of perimenopausal women according to their education reveals that in the control group, majority of 31%

respondent completed the secondary education followed by 27% respondent who completed their graduation, 25% of respondents who completed primary education, and 17% were illiterate. In the experimental group, majority of the 44% of the subjects completed their secondary education, followed by 31% of the subjects who completed their primary education, 23% of the subjects were illiterate, and 2% of the subjects completed their graduation.^{22,23}

Table 3: Distribution of perimenopausal women based on their demographic characteristics. *N* = 200

Demographic variables	Study participants			
	Control group (<i>n</i> = 100)		Experimental group (<i>n</i> = 100)	
	Frequency	Percentage (%)	Frequency	Percentage (%)
Age				
40–45 years	21	21	17	17
46–50 years	66	66	60	60
51–55 years	13	13	23	23
Education				
Illiterate	17	17	23	23
Primary education	25	25	31	31
Secondary education	31	31	44	44
Graduation	27	27	02	02
Occupation				
Employee	23	23	21	21
Labor	24	24	25	25
Housewife	48	48	51	51
Retired	05	05	03	03
Marital status				
Unmarried	00	00	00	00
Married	91	91	87	87
Widow	03	03	05	05
Divorced	06	06	08	08

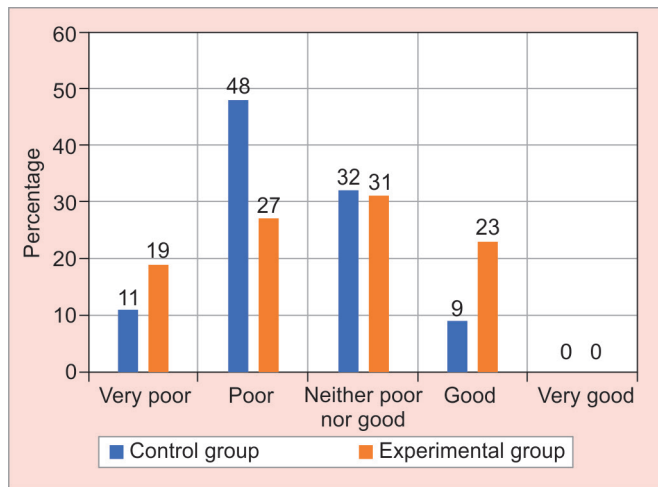


Fig. 2: Assessment of the existing quality of life among perimenopausal women

Majority of the participants had completed their secondary education in both control and experimental group.

Figure 2 and Table 4 shows the existing quality of life among perimenopausal women. It shows that in control group, majority of the 48% subjects having poor QoL followed by 32% having neither poor nor good, 11% of the subjects having very poor QoL and 9% of subjects having good QoL. In the experimental group, majority of the subjects (31%) were having neither poor nor good

Table 4: Assessment of existing quality of life among perimenopausal women in control and experimental group. *N* = 200 (100 + 100)

S. No.	Quality of life among perimenopausal women	Study participants			
		Control group		Experimental group	
		Frequency	Percentage (%)	Frequency	Percentage (%)
1	Very poor	11	11	19	19
2	Poor	48	48	27	27
3	Neither poor nor good	32	32	31	31
4	Good	09	09	23	23
5	Very good	00	00	00	00

Table 5: Assessment of 3rd month post-test quality of life among perimenopausal women. *N* = 200 (100 + 100)

S. No.	Quality of life among perimenopausal women	Study participants			
		Control group		Experimental group	
		Frequency	Percentage (%)	Frequency	Percentage (%)
1	Very poor	10	10	05	05
2	Poor	49	49	03	03
3	Neither poor nor good	34	34	41	41
4	Good	07	07	51	51
5	Very good	00	00	00	00

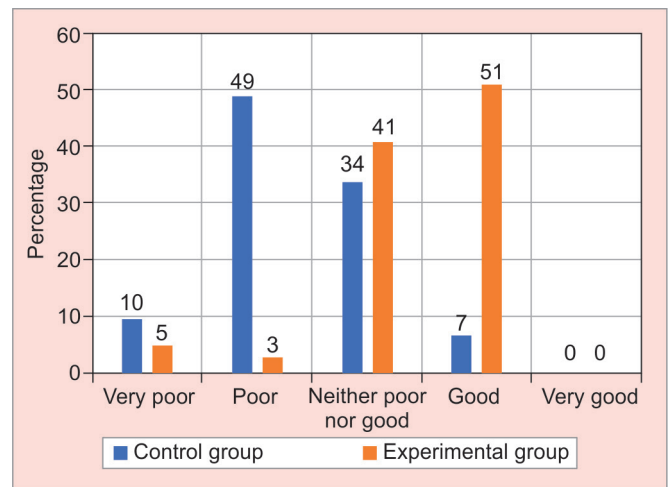


Fig. 3: Assessment of 3rd month post-test quality of life among perimenopausal women

QoL, followed by 27% of the subjects having poor QoL, 23% having good QoL, and 19% having very poor QoL.^{24,25}

In the control group, the existing quality of life among perimenopausal women is poor and in the experimental group, it is neither poor nor good quality of life.

Table 5 and Figure 3 illustrate the post-test quality of life, which shows that in control group, majority of the 49% of subjects were having poor QoL followed by 34% having neither poor nor good QoL, 10% having very poor QoL, and 7% good QoL. In the experimental group, majority of the 51% of subjects were having good quality of life followed by 41% having neither poor nor good

QoL, 5% having very poor QoL and 3% having poor QoL.^{26,27} Majority of the subjects were shown to have good quality of life in the experimental group, whereas in the control group, majority of the subjects still have poor quality of life after the implementation of BASNEF model. Hence, the researcher can conclude that the BASNEF model shows significant positive effect on the quality of life of respondents from the experimental group.²⁸

CONCLUSION

The present study shows that the BASNEF model plays an important role in the improvement of knowledge, attitude, belief, practices, and quality of life among perimenopausal women. It was suggested that the same study can be conducted in an urban area. All hospitals should establish a protocol based on BASNEF model to improve the quality of life.²⁹

ACKNOWLEDGMENT

The authors would like to thank all perimenopausal women for willingly participating in this study.

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