

Original Research Article

Effectiveness of Structured Teaching Programme on Knowledge Regarding Menopausal Problems among Women at Rural Areas at Mangaluru

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ABSTRACT

Background of the study: Menopause is a unique stage of female life cycle, a transition from reproductive stage. A variety of physiological and physical changes takes place in the body, before and during menopause. This transition will be smooth, only if women are aware of the natural changes occurring in their body, which will help them to adopt self-help behavior and to improve their physical health. It's therefore essential to provide information to women regarding menopausal problems through a structured teaching program.

Objectives of the study

- To determine the pre-test level of knowledge among women regarding menopausal problems.
- To evaluate the effectiveness of structured teaching program on knowledge regarding menopausal problems among women.
- To find the association between pre-test knowledge score with the selected demographic variables.

Methodology: A quasi experimental non randomised control group design was performed among 100 women. Sample was selected using non probability convenience sampling technique. The pre-test knowledge levels were assessed in both groups by structured interview method and structured teaching program was administered for the experimental group on the same day. Post-test was conducted after seven days using the same tool. Data analysis was done by descriptive and inferential statistics.

Results: In pre-test, majority of samples in experimental group (86%) and control group (88%) had poor knowledge regarding menopausal problems. Whereas in post-test majority of respondents had good knowledge in experimental group (58%) and poor knowledge in control group (88%). There was significant difference between pre-test and post test score of knowledge score in both the group ($p < 0.05$).

Conclusion: Hence the researcher concluded that structured teaching programme was effective in improving the knowledge of women regarding menopausal problems.

Key words: Structured teaching program, knowledge, women, and menopausal problem.

INTRODUCTION

Women experience various turning points in their life cycle, which may be developmental or transitional. Midlife is one such transitional period which brings about important changes in women. One of those

important changes that occur in this stage of life is menopause. Menopause is an unavoidable change in reproductive life cycle, that every women experience in her middle age and beyond. ^[1]

Menopause is the cessation of woman's reproductive ability, the opposite of menarche. The term 'Menopause' was derived from the Latin words, Meno (month) and Pausia (halt). It essentially marks the end of a woman's period of natural fertility. [2] Menopause normally occurs between 45-50 years. As a woman approaches menopause, the number of ovarian follicles decline, producing less oestrogen and causing irregular menstrual periods. Eventually, the quantity of oestrogen produced is too low to maintain the monthly menstrual cycle. The next stage is referred to as the menopausal syndrome which ranges from hot flushes and irritability to osteoporosis and heart disease and is experienced by all women in varying degree. [2]

In the developed world, it is estimated that there are over 200 million post-menopausal women worldwide and 40 million in India. The average age of Indian menopausal women is 47.5 years. [3] The percentage of menopausal women in Karnataka is 20.2%. [4]

A variety of physiological and physical changes takes place in the body, before and during menopause. Some of these changes are the result of cessation of ovarian function and related menopausal events while others are functions of the ageing process. The most important and immediate symptoms of the menopause are the effects of hormonal changes on many organ systems of the body resulting in various somatic, psychological, vasomotor and sexual problems. However, risk for more serious complications increase after a woman reach menopause during the postmenopausal stage. Sudden depletion in oestrogen level during menopause may result in various complications such as heart disease, osteoporosis, fracture, cerebrovascular disorder, metabolic disorder, increased weight gain, dementia, Alzheimer's disease and endometrial cancer. [5]

Menopause may result in various health problems and complications in

women's life as discussed above. Treating the menopausal symptoms will be more essential to prevent the complications. Some of the treatment includes life style modification, nutritious diet, exercise, calcium supplementation, vitamin D supplementation, cessation of smoking and alcohol, pharmacological treatment and hormone replacement therapy. [6]

Many women in the developing countries do not know that they can age gracefully, as they are unaware of the dangers that the menopause can cause to their lives. Most of them suffer in silence not bringing to notice their symptoms. [7]

Objectives of the study

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MATERIALS AND METHODS

Methods

An evaluative approach and quasi experimental non randomised control group design was used in this study. Sample was selected using non probability convenience sampling technique. The total sample size was 100 women of age group 40-55 years, among whom 50 women were assigned to experimental group and 50 women to control group. The pre-test knowledge levels were assessed in both groups. On the same day after pre-test, the investigator administered structured teaching program for the experimental group. Post-test was conducted after seven days using the same tool. Data analysis was done by descriptive and inferential statistics.

Materials

Data was collected by means of interview method with the help of structured knowledge questionnaire. Structured

knowledge questionnaire comprised of section A and Section B. section A consisted of demographic proforma and section B consisted of structured knowledge questionnaire.

Validity, reliability of the tool and pilot study

Content validity of the tool was established with the help of experts from related field. Pre-testing of the tool revealed that the tool was clear, feasible and there was no ambiguity in the language. Reliability coefficient computed using split half method and Karl Pearson's correlation followed by Spearman Brown Prophecy formula was 0.91 which indicates tool is highly reliable Pilot study was conducted on 20 samples. Data obtained were analyzed in terms of the objectives using descriptive and inferential statistics. After conducting pilot study it was found that the tool and structured teaching programme were reliable, feasible and practicable.

Inclusion Criteria for sampling

- Women who were:
- Between the age of 40-55years.
- Interested and willing to participate.
- Available at the time of data collection.

Exclusion criteria for sampling

- Women who were:
- Having serious health problem.
- Mentally ill.

Data collection

Data was collected from 6th to 28th November, 2015. Prior to data collection permission was obtained from concerned authority and District Medical Officer. The investigator herself collected the data by means of interview method with the help of structured knowledge questionnaire among 100 women at rural areas of Mangaluru. Structured teaching program was administered to the experimental group on the same day after pre-test, by dividing the samples into group of five based on their geographical proximity. Post-test was conducted after seven days using same tool.

The data collection was terminated by thanking the women for their participation and co-operation.

Data analysis

Data was analysed using descriptive and inferential statistics. Demographic data was analysed in terms of frequency and percentage. Knowledge score was analyzed by comparing frequency, percentage, minimum score, maximum score, mean, median and standard deviation. Effectiveness of structured teaching program was checked using paired' test and unpaired "t" test. Chi-square test was used to find association between pre-test knowledge score and selected variables.

RESULTS

SECTION I: Distribution of women according to their demographic characteristics

The present study revealed that, in both experimental and control group, majority (50% and 46% respectively) of the samples were of age group 46-50 years. Most of the samples in the experimental (56%) and control group (60%) belonged to Hindu religion. All (100%) the samples in the experimental group and control group were non-vegetarians and with regular menstrual cycle. Distribution of the samples with regard to the educational status showed that 42% of the experimental group samples had undergone high school education and 38% of the control group samples had primary education. Around 74% samples of the experimental group and 70% samples of the control group were house wives. Both the groups, experimental and control had highest (66% and 60% respectively) samples with a monthly family income of Rs. 8,001-9,999. About 92% samples in experimental group and 90% samples in control group belonged to the nuclear family. Maximum samples of the experimental group (80%) and control group (72%) had attained menarche at 13-15 years of age. Most of the women in experimental and control group (96% and 80% respectively) menstruated at a

frequency of 28-30 days. Majority of them from both the experimental (70%) and control group (66%) had a menstrual duration of 4-5 days. Most of the respondents in the experimental group (54%) had conceived 3-4 times, whereas in control group, 46% of respondents had conceived 1-2 times. In both groups, 76% of respondents had 1-2 living children. Ninety eight percent of respondents in experimental group and 100% respondents in control group had not undergone any surgery related to uterus or Ovary. Maximum number of respondents in both experimental and control group (70% and 80% respectively) had not used any contraceptives. Among the respondents, 94% in experimental group and 96% in control group had no family history of menopausal problems. Only 10% in experimental group and 4% in control group had previous information about menopausal problems, highest among them had

parents/siblings as their source of information in both experimental and control group (6% and 2% respectively).

SECTION II: Frequency distribution of women according to their pre-test and post-test level of knowledge score

The pre-test scores displayed in the table 1 disclosed that, majority (86% of experimental group and 88% of control group) had poor knowledge, about 14% of respondents in experimental group and 12% of control group had average knowledge and none of them in both the group had good knowledge. Whereas the post-test scores in table 1 depicted that, in experimental group majority (58%) of respondents had good knowledge and 42% had average knowledge and none of them in the group had poor knowledge. In control group, 88% of respondents had poor knowledge, 12% had average knowledge and none of them had good knowledge.

Table 1: Frequency distribution of women according to their pre-test and post-test level of knowledge score

Pre-test knowledge score					
Level of knowledge	Range of scores	Experimental Group		Control Group	
		Frequency	Percentage	Frequency	Percentage
Poor	1-11	43	86	44	88
Average	12-16	7	14	6	12
Good	17-22	-	-	-	-
	Total	50	100	50	100
Post-test knowledge score					
Poor	1-11	-	-	44	88
Average	12-16	21	42	6	12
Good	17-22	29	58	-	-
	Total	50	100	50	100

SECTION III: Effectiveness of structured teaching program

In order to find the significant difference, paired ‘t’ test was computed for experimental group ($t'_{(49)} = 16.954$; $p < 0.05$) and control group ($t'_{(49)} = -1.00$; $p > 0.05$). To find the statistical difference between the

experimental and control group, unpaired ‘t’ test was computed ($t'_{(98)} = 16.420$; $p < 0.05$). This indicated that, the structured teaching program was effective in improving the level of knowledge of women among the experimental group.

Table 2: Mean pre-test and post-test scores, Mean difference, Standard deviation, Standard error and paired ‘t’ test within the experimental and control group. n=100

Group	Mean pre-test score	Mean post-test score	Mean difference	SD	SE	df	Paired ‘t’ test
Experimental group	8.72	16.18	-7.46	1.09	0.15	49	16.950* df=49, p<0.000
Control group	8.12	8.12	-0.02	0.14	0.02	49	-1.00 df=49, p>0.322

$t_{(49)} = 2.00$; $p < 0.05$, * Significance

Table 3: Mean pre-test and post-test score, Mean difference, Standard deviation, Standard error and Unpaired 't' test between the two groups. n=100

Group	Mean pre-test score	Mean post-test score	Mean difference	SD	SE	df	Unpaired 't' test
Experimental group	8.72	16.18	7.46	1.09	0.49	98	16.420*
Control group	8.12	8.14	-0.02	0.14			p<0.000

t₍₉₈₎=1.98; p<0.05, * Significance

SECTION IV: Association of pre-test knowledge scores with selected demographic variables

The present study showed that, there was association between the pre-test level of knowledge and some of the selected

demographic variables like age, education and surgery related to uterus/ovary in the experimental group and association was found between pre-test level of knowledge and selected variable like age in control group at 0.05 level of significance.

Table 4: Association of pre-test knowledge scores with selected demographic variables n=100

Si No.	Demographic variables	Experimental group			Control group		
		Chi square value	p value	Remarks	Chi square value	P value	Remarks
1	Age	41.66	0.003*	P<0.05	32.50	0.009*	P<0.05
2	Religion	13.66	0.847	p>0.05	19.59	0.239	p>0.05
3	Education	53.47	0.007*	P<0.05	35.37	0.312	p>0.05
4	Occupation	24.829	0.208	p>0.05	20.27	0.208	p>0.05
5	Family income	25.66	0.177	p>0.05	11.28	0.792	p>0.05
6	Family type	8.755	0.556	p>0.05	4.55	0.804	p>0.05
7	Food habit	-	-	-	-	-	-
8	Age at menarche	35.36	0.018*	P<0.05	18.36	0.303	p>0.05
9	Menstrual pattern	-	-	-	-	-	-
10	Frequency of menstruation	5.9777	0.817	p>0.05	7.53	0.481	p>0.05
11	Duration of menstruation	18.28	0.569	p>0.05	18.55	2.93	p>0.05
12	No. of pregnancy	46.26	0.229	p>0.05	42.34	0.104	p>0.05
13	No. of living children	13.54	0.893	p>0.05	23.95	0.091	p>0.05
14	Surgery related to ovary/ uterus	50.00	0.00*	P<0.05	-	-	-
15	Use of contraceptives	6.56	0.76	p>0.05	2.411	0.966	p>0.05
16	Family history of menopausal problem	6.72	0.751	p>0.05	7.46	0.487	p>0.05
17	Previous knowledge	7.011	0.724	p>0.05	7.46	0.487	p>0.05
18	Source of knowledge	5.00	0.172	p>0.05	2.00	0.157	p>0.05

* Significance

DISCUSSION

The menopause is normal part of life-it is milestone, just like puberty- it is not a disease or a condition. Menopausal problems are the important public health problem. It mainly hits the life of women between the ages of 45-50 years. Lack of awareness of menopausal problems and its management has increased the prevalence of the disease. It is imperative that health professionals should educate women regarding menopausal problems. Knowing more about menopause will empower women to cope better with menopausal changes. [8]

Section I: Distribution of women according to their demographic characteristics

The present study revealed that, in both experimental and control group,

majority (50% and 46% respectively) of the samples were of age group 46-50 years. Most of the samples in the experimental (56%) and control group (60%) belonged to Hindu religion. All (100%) the samples in the experimental group and control group were non-vegetarians and with regular menstrual cycle. Distribution of the samples with regard to the educational status showed that 42% of the experimental group samples had undergone high school education and 38% of the control group samples had primary education. Around 74% samples of the experimental group and 70% samples of the control group were house wives. Both the groups, experimental and control had highest (66% and 60% respectively) samples with a monthly family income of 8,001-9,999 rupees. About 92% samples in experimental group and 90% samples in

control group belonged to the nuclear family. Maximum samples of the experimental group (80%) and control group (72%) had attained menarche at 13-15 years of age. Most of the women in experimental and control group (96% and 80% respectively) menstruated at a frequency of 28-30 days with duration of 4-5 days, 70% in experimental group and 66% in control group. Majority of respondents in the experimental group (54%) had conceived 3-4 times, whereas in control group, 46% of respondents had conceived 1-2 times. In both the group 76% of respondents had 1-2 living children. Ninety eight percent of respondents in experimental group and 100% respondents in control group had not undergone any surgery related to uterus\ovary. Maximum number of respondents in both experimental and control group (70% and 80% respectively) had not used any contraceptives. Among the respondents, 94% in experimental group and 96% in control group had no family history of menopausal problems. Only 10% in experimental group and 4% in control group had previous information about menopausal problems, highest among them had parents/siblings as their source of information in both experimental and control group (6% and 2% respectively).

The study finding is similar to the study conducted at Dow university hospital, a study to evaluate the perception and experience of women regarding menopause. The results showed that the mean age of women was 46.2 years. Out of total, 55 (75.3%) women were housewives. Regarding the level of education 25 (32.4%) were graduate, 8 (11%) were post graduate, 9 (12.3%) were of intermediate level, 16 (21.9%) were metric and 15 (20.5%) were uneducated. [9]

Section II: Frequency distribution of women according to their pre-test and post-test level of knowledge score

The pre-test scores of present study disclosed that, majority of samples in both group (86% of experimental group and 88% of control group) had poor knowledge,

about 14% of respondents in experimental group and 12% of control group had average knowledge and none of them in both the group had good knowledge.

The post-test scores of present study depicted that, in experimental group majority (58%) of respondents had good knowledge and 42% had average knowledge and none of them in the group had poor knowledge. In control group, 88% of respondents had poor knowledge, 12% had average knowledge and none of them had good knowledge. A similar study was conducted at Isra university hospital, Pakistan, which was to determine the knowledge and investigate the symptoms experienced by post-menopausal women among 863 women of age group 42- 80 years. Results showed that only 15.8% women knew about menopausal affects and symptoms while 78.8% of women had little knowledge on the same. [10]

Section III: To assess the effectiveness of structured teaching programme

In order to find the significant difference, paired 't' test was computed for experimental group ($t_{(49)}=16.954$; $p < 0.05$) and control group ($t_{(49)}= -1.00$; $p > 0.05$). To find the statistical difference between the experimental and control group, unpaired 't' test was computed ($t_{(98)} = 16.420$; $p < 0.05$). This indicated that, the structured teaching program was effective in improving the level of knowledge of women among the experimental group. The finding of the study was found similar to a study conducted to evaluate the effectiveness of structured teaching programme on knowledge regarding menopausal problems and its remedial measures among middle aged women in selected rural areas, Bangalore. Results showed that in the pre-test, about 71.7% of the samples had inadequate knowledge, whereas in the post test of the samples 68.3% had gained adequate knowledge. Also the results of unpaired 't' test ($t_{(98)} = 15.810$; $p < 0.05$) showed that, structured teaching programme was effective in improving the knowledge of women. [11]

Section IV: Association between pre-test knowledge score and selected demographic variables

The present study showed that, there was association between the pre-test level of knowledge and some of the selected demographic variables like age, education and surgery related to uterus/ovary in the experimental group and association was found between pre-test level of knowledge and selected variable like age in control group at 0.05 level of significance.

The study findings are similar to the study conducted to assess the perceptions about menopausal symptoms and quality of life of post-menopausal women among 189 post-menopausal women at rural areas of Bangalore. The results of the study showed that there is significant relationship between knowledge of women and selected demographic variables like age, education, employment and type of family. ^[12]

CONCLUSION

The present study was aimed to assess the effectiveness of structured teaching program on knowledge regarding menopausal problems among women in selected rural areas of Mangaluru. Results showed that, majority of women in pre-test had poor knowledge regarding menopausal problems. Administration of structured teaching program regarding menopausal problems to experimental group was found to be effective in improving the knowledge of women regarding menopausal problems as evidenced by increase in post-test knowledge score. Thus the study concluded that there is great need for health personnel to educate women regarding menopausal problems.

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