

# A Quasi Experimental Study to Evaluate the Effectiveness of Structured Teaching Programme regarding Post Menopausal Syndrome on Knowledge among the Middle-Aged Women in Selected Rural Areas of Dhalai Tripura

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**Abstract:** Post menopause is period beginning from about 1 year after cessation of menstruation and at the same time, health related risk also may be apparent due to loss of estrogen activity in women<sup>2</sup>. The age of menopause ranges between 45 - 55 years, average of being 51yrs. It is estimated that in 1998, there were over 477 million postmenopausal women in the world. That number is projected to rise to 1.1 billion by the year 2025 in the world.<sup>10</sup> **Methodology:** The research design was Quasi Experimental design with non randomized control group design. 'Purposive sampling technique was used to select samples for experimental ( $n_1$  - 30) and for control group ( $n_2$  - 30). The tool used for data collection was structured knowledge questionnaires which comprised of section A and section B. The reliability of the tool was 0.96. It was found reliable. Pre - test was taken then, the structured teaching programme was implemented on post menopausal syndrome to experimental group and post test was conducted after minimum 7 days. No intervention was given to control group. Data gathered were analyzed by using appropriate descriptive and inferential statistics. **Results:** The overall mean pre test score of experimental group was 48% is less compared to mean post test score of 83.20%, with 't' value 14.81 which was statistically significant at  $p < 0.05$ . The overall mean pre - test score of control group was 52.64 % followed by post test score of 54.24%. Overall observation showed that, the structured teaching programme on Post menopausal syndrome was effective. **Conclusion:** The overall findings of the study clearly showed that, the structured teaching programme was effective in increasing the awareness of common people. The overall findings of the study clearly showed that, the structured teaching programme was effective in increasing the awareness of common people.

**Keywords:** Effectiveness, Structured teaching programme, Post menopausal syndrome, Middle aged women

## 1. Introduction

A Woman is responsible for the miracle of birth. As life goes on, there are lots of changes occur in women's life cycle. Major concern in woman's life is reproductive health. It is estimated that, in 1998, there were over 477 million postmenopausal women in the world. That number is projected to rise to 1.1 billion by the year 2025 in the world. Cancer is the second leading cause of death for post menopausal women, killing 169.9 of every 100, 000 women each year.<sup>11</sup> In contemporary society, all women experience the menopausal symptoms. Typical menopause symptoms, such as hot flashes or night sweats, insomnia, atrophy of vagina, vaginal dryness, urgency, stress incontinence, increased anxiety, depression, headache, irritability, mood swings, increase tendency to coronary artery disease, dementia to concentrate, sexual dysfunction and osteoporosis etc.<sup>3</sup> It accounts 50 - 85% of menopausal women experiences vasomotor symptom and 36% of women suffer from insomnia, 30% experience forgetfulness, 46% suffer from heart disease, 30% of women suffer from osteoporosis during menopause. Approximately 10% of the women have no symptoms of menopausal other than cessation of menstruation 70% to 80% are aware of other changes but have no problems and approximately 10% experiences changed severe enough to interfere with activities of daily living.<sup>4</sup> Vasomotor symptoms last for one

to two years after menopause in most women, but may continue for up to ten year or longer in others.<sup>5</sup>

### Objectives of the study:

- 1) To assess the pretest knowledge score regarding postmenopausal syndrome among the middle-aged women of both experimental and control group.
- 2) To evaluate the effectiveness of structured teaching programme regarding post-menopausal syndrome among the experimental group.
- 3) To evaluate the post- test knowledge score regarding postmenopausal syndrome among the middle-aged women of both experimental and control group.
- 4) To find out the association between pretest knowledge scores of both experimental and control group with selected socio - demographic variables.

### Assumption

- 1) Middle aged women may have inadequate knowledge regarding post- menopausal syndrome.
- 2) Structured teaching programme may enhance the knowledge of the middle- aged women in the experimental group regarding post-menopausal syndrome.

## 2. Methods

The research design was Quasi Experimental design with non-randomized control group design. The conceptual framework used for this study is based on 'King's Goal attainment theory'. Purposive sampling technique was used to select 30 samples for experimental and 30 for control group. Middle aged women from Mohanpur and Noagaon of Dhalai Tripura and willing to participate were selected for the study. Women who are diagnosed cancer uterus, uterine prolapse were excluded from the study. The tool used for data collection was structured knowledge questionnaires which comprised of section A and section B. The reliability of the tool was 0.96. It was found reliable. Pre - test was taken then, the structured teaching programme was implemented on post menopausal syndrome to experimental group and post test was conducted after minimum 7days. No intervention was given to control group. Data gathered were analyzed by using appropriate descriptive and inferential statistics.

**Ethical Consideration:** The study was conducted after approval of the Institutional ethical committee society for Tripura Medical College & Dr BRAM teaching School and informed and written consent was obtained from each participant before enrolment of the study.

### Instruments

A structured knowledge questionnaires comprised two section 1st section is demographic data and 2<sup>nd</sup> section were selected for the study to collect the data from middle aged women to know their knowledge on post menopausal syndrome. It was considered to be the appropriate tool for the present study. A structured knowledge questionnaire was prepared to assess the knowledge of the middle aged women on post menopausal syndrome. The demographic data such as age, religion, type of family, education, occupation, income, age of attaining menopause, parity, marital status, age of menarche, previous information on Post menopausal syndrome and sources of information and 2<sup>nd</sup> section consisted items related to knowledge on Post menopausal syndrome. The split half method with spearman brown's prophecy formula was used to test the reliability of the tool,  $r_{\frac{1}{2}} = 2 r_{1/2} / 1 + r_{1/2}$ . Where  $r_{\frac{1}{2}}$  is the estimated reliability of the item. ' $r_{\frac{1}{2}}$ ' is the correlation co - efficient computed on the split half. There reliability of the tool was 0.96.

### Data collection procedure

Permission from the concerned authorities of the Block development officer was obtained to conduct the study. Consent was taken from the participants. Pretest was conducted with the help of knowledge questionnaires through interview schedule for the clients for duration of 25mins for each subject from selected rural areas, Dhalai, Tripura for experimental and control group. Structured teaching programme regarding the knowledge on Post menopausal syndrome was conducted for a period of one

hour and thirty minutes after the pre - test for the experimental group, with the help of power point, flash card and flip chart. No intervention was given to the control group. Post test was conducted after minimum 7 days with the same knowledge questionnaires through interview schedule after the implementation of the structured teaching programme to assess the knowledge on post-menopausal syndrome for the experimental and for the control group minimum 7 days after pre - test respectively.

**Statistical analysis:** The data obtained were organized in the master sheet for tabulation, statistically analyzed and interpreted by using descriptive and inferential statistics.

### Null Hypotheses formulated for the study:

**H<sub>01</sub>:** - The mean post- test knowledge score of the middle-aged women who are exposed to structured teaching programme on post- menopausal syndrome is not significantly higher than the mean pre - test knowledge score in experimental group as measured by the knowledge questionnaires at 0.05 level of significance.

**H<sub>02</sub>:** - The mean post - test knowledge score of the middle-aged women in experimental group is not significantly higher than the mean post - test knowledge score of the middle- aged women in control group as measured by the knowledge questionnaires at 0.05level of significance.

**H<sub>03</sub>:** - There is no significant association between pre - test knowledge score of experimental groups among the middle-aged women regarding post-menopausal syndrome with selected demographic variables.

**H<sub>04</sub>:** - There is no significant association between pretest knowledge score of control group among the middle-aged women regarding post-menopausal syndrome with the selected demographic variables

## 3. Results of the Study

The data obtained were organized in the master sheet for tabulation, statistically analyzed and interpreted by using descriptive and inferential statistics. (Figure 1) - Among the 30 middle aged women, 50% of the 51 - 55year age group, 36.66% was between the age group of 40 - 45years, 13.33% were between the age group of 46 - 50 years in the experimental group. In the control group among the 30 middle aged women 43.33% were between the age group of 40 - 45years, 33.33% were between the age group of 46 - 50 year and 23.33% in 51 - 55-year age group. Religion of the middle-aged women reveals that, 86.66% were Hindu and 13.33% were Muslim in the experimental group and 86.66% were Hindu and 13.33% were Muslim in the control group. (Figure - 2) - Occupation of the middle-aged women reveals that, 36.66% of unemployed, 33.33% were daily wager, 20% were self-employed, 6.66% were Govt. employee and 3.33% were farmer in the experimental group. It also depicts that, occupation of the middle-aged women reveals that, 50% were daily wager 26.66% were unemployed, 6.66% were farmer, 10% were Govt. employee and 6.66% were private employed in the control group.

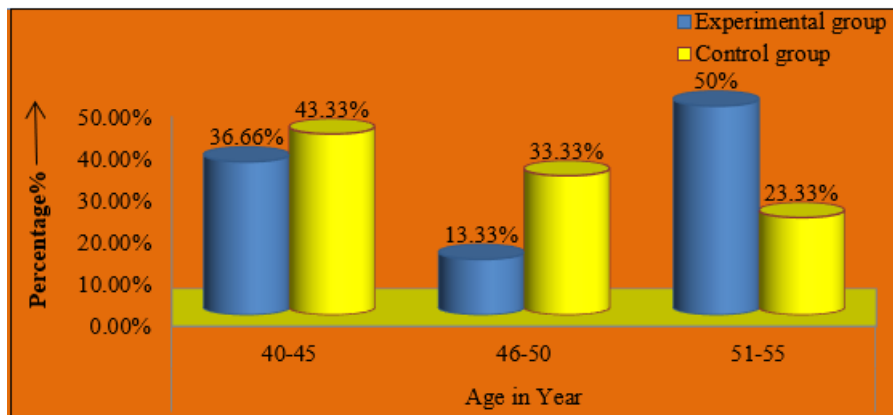


Figure 1: Bar graph is showing the age wise distribution of middle-aged women in the experimental and control group

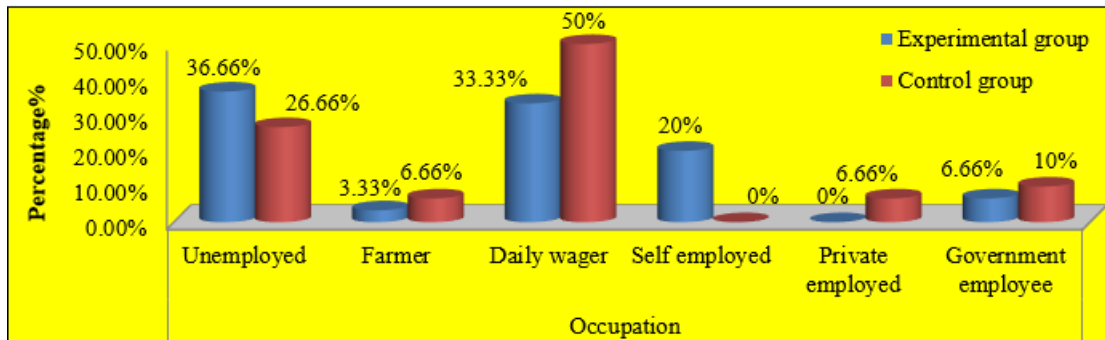


Figure 2: Bar graph is showing classification of respondents by occupation

Table 1: Mean, Mean difference, SD and 't' value of pre test knowledge score in the experimental and control group. N=60

S. No	Group	Mean	Mean difference	SD	't' value
1	Experimental group	12.8	0.36	2.54	0.50 <sup>NS</sup>
2	Control group	13.16		2.97	

\*Significant at 0.05 level, (df 58, table value - 1.96), NS=Not significant)

Table 1: - reveals that, the mean pre - test knowledge score of the experimental group is 12.8 which is lower than the mean pre - test knowledge score of the control group i. e.13.16 with a mean difference of 0.36 which is not found to be statistically significant as evident from 't' value 0.50. It represented that initially there is no difference in the pre - test knowledge score of both the experimental and control group respondents

Table 2: Over all Mean percentage effectiveness of structured teaching programme on Post menopausal syndrome among the middle- aged women in the experimental group. n - 30

S. No	Area	Statement	Middle aged women's knowledge				't' value
			Mean	Mean difference	Mean%	SD	
1.	Pre - test	25	12.8	8	48	2.54	14.81*
2.	Post - test	25	20.8		83.20	1.66	

\* Significant at 5% level, (df 29, tabulated value - 2.05).

Table - 2 reveals that, mean  $\pm$  SD & mean% of the post-tests score is  $20.8 \pm 1.66$  & 83.20% which is significantly higher than the mean  $\pm$  SD & mean% of the pre- test score i. e.  $12.8 \pm 2.54$  & 48%. Further, 't' value=14.81 of pre- test and post- test of the sample was found to be significant at  $p < 0.05$ . Therefore, the finding reveals that, the structured teaching programme on post- menopausal syndrome was effective to increasing knowledge on Post menopausal syndrome among the middle-aged women in the experimental group. Hence, Null hypothesis  $H_{01}$  is rejected. Analysis of the post- test knowledge scores of experimental group and control group among the middle-aged women regarding post- menopausal syndrome.

Table 3: Overall and Mean percentage of Post test Knowledge scores on post-menopausal syndrome in the experimental and control group. N=60

S. No	Knowledge on post- menopausal syndrome	Middle aged women's knowledge						't' value
		Experimental group			Control group			
		Mean	Mean%	SD	Mean	Mean%	SD	
1.	Concept of menopause	3.53	88.25	0.56	1.96	49	1.04	11.67*
2.	Syndromes of menopause	9.63	80.25	1.42	6.36	53	1.54	
3.	Management of menopausal syndrome	7.63	84.77	1.14	5.23	58.11	1.60	
	Overall	20.8	83.20	1.66	13.56	54.24	3.00	

\*Significant at 5% level, (df 58, tabulated value - 2.00)

Table3: reveals that, Area wise mean post - test score of the experimental group is significantly higher compared to mean post test score of control group in all the areas of knowledge on post-menopausal syndrome. The findings show that, overall 't' value - 11.67 which is significant at 0.05 level of

significance. The statistical unpaired 't' test reflects significant difference in the knowledge scores of the experimental and control group at p<0.05. Hence, Null hypothesis Ho<sub>2</sub> is rejected.

**Table 4:** Frequency and percentage distribution of demographic characteristic of middle-aged women in experimental group and association between selected demographic variable and pre - test level of knowledge on postmenopausal syndrome among middle aged women in experimental group. n=30

Demographic Variables	Category	Sample (n)	Below median	Above median	df	χ <sup>2</sup> value
1. Age in Year	40 - 45	11	7	4	2	1.4 <sup>NS</sup>
	46 - 50	4	2	2		
	51 - 55	15	6	9		
2. Religion	Hindu	26	12	14	1	1.14 <sup>NS</sup>
	Muslim	4	3	1		
3. Educational status	Can read and able to write	5	2	3	4	2.24 <sup>NS</sup>
	Primary School	21	11	10		
	Matriculate	1	0	1		
	H. S. school	2	1	1		
	Graduate	1	1	0		
4. Occupation	Unemployed	11	7	4	4	6.86 <sup>NS</sup>
	Farmer	1	1	0		
	Daily wager	10	4	6		
	Self employed	6	1	5		
	Govt employee	2	2	0		
5. Monthly income	<Rs5000/-	20	10	10	2	1.10 <sup>NS</sup>
	5001 - 10, 000	9	4	5		
	10, 001 - 15, 000	1	1	0		
6. Age of menarche	12 - 13year	13	8	5	2	1.12 <sup>NS</sup>
	14 - 15year	10	4	6		
	16year	7	3	4		
7. Parity	Nullipara	1	0	1	3	4.28 <sup>NS</sup>
	Primipara	2	0	2		
	Multipara	20	10	10		
	Grand multipara	7	5	2		

\* Significant at 5% Level, p<0.05 NS: Non - significant

Table 4 describes the demographic variable as Age, Religion, Educational status, Occupation, Monthly income, Age of menarche, Parity is not significant association with

the pre - test level of knowledge score on post-menopausal syndrome at p<0.05. Hence, Null hypothesis is H<sub>03</sub> is accepted.

**Table 5:** Frequency and percentage distribution of demographic characteristic of middle-aged women in control group and association between selected demographic variable and pre - test level of knowledge on postmenopausal syndrome among middle aged women in control group. n=30

Demographic Variables	Category	Sample (n)	Below median	Above median	df	χ <sup>2</sup> value
1. Age in Year	40 - 45	13	7	6	2	0.47 <sup>NS</sup>
	46 - 50	10	4	6		
	51 - 55	7	3	4		
2. Religion	Hindu	26	11	15	1	1.38 <sup>NS</sup>
	Muslim	4	3	1		
3. Educational status	Can read and able to write	7	4	3	4	2.21 <sup>NS</sup>
	Primary School	19	9	10		
	Matriculate	2	1	1		
	H. S. school	1	0	1		
	Graduate	1	0	1		
4. Occupation	Unemployed	8	0	8	4	9.89*
	Farmer	2	1	1		
	Daily wager	15	10	5		
	Private employed	2	1	1		
	Govt employee	3	2	1		
5. Monthly income	<Rs5000/-	23	10	13	4	2.22 <sup>NS</sup>
	5001 - 10, 000	1	0	1		
	10, 001 - 15, 000	2	1	1		



	15001 - 20000	1	0	1		
	>Rs20, 000	3	2	1		
6. Age of menarche	12 - 13year	10	7	3	2	3.43 <sup>NS</sup>
	14 - 15year	13	5	8		
	16year	7	2	5		
7. Parity	Nullipara	1	0	1	3	2.51 <sup>NS</sup>
	Primipara	7	2	5		
	Multipara	19	10	9		
	Grand multipara	3	2	1		

\* Significant at 5% Level, p<0.05 NS: Non - significant

Table - 5 describes significant association between occupation with the pretest level of knowledge score of middle-aged women in the control group with  $\chi^2=9.89$  at p<0.05. Hence, Null hypothesis is H<sub>0</sub> is rejected. The other variable as Age, Religion, Educational status, Monthly income, Age of menarche, Parity has no association with the pre - test level of knowledge score on post-menopausal syndrome at p<0.05. Hence, Null hypothesis is H<sub>0</sub> is accepted.

#### 4. Discussion

The study is a quasi-experimental study. The aim of the present quasi experimental study is to enhance the knowledge regarding post-menopausal syndrome and to evaluate the effectiveness of structured teaching programme on post-menopausal syndrome among the middle-aged women in selected rural areas at Dhalai, Tripura. It consists of non randomized control group design These subjects were divided as 30 in experimental group and 30 in control group. The structured interview schedule was used to collect the data from the middle-aged women of selected rural areas in Dhalai, Tripura. After the pretest structured teaching programme programme was implemented and post test was conducted on 7 days after structured teaching programme to evaluate the effectiveness of teaching programme for the experimental group. For control group pre - test was followed by posttest after minimum 7 days. There was no intervention for the control group. The finding of study has implications for nursing education, nursing practice, nursing administration and nursing research.

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