

## Effect of structured teaching programme on level of knowledge and skill of breast self examination among women in Jubilee mission medical college and research institute, Thrissur.

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### ABSTRACT

**Introduction:** Breast cancer occurs in women at any age after puberty. Breast self examination helps to detect breast cancer at early stage and also helps to decrease death due to breast cancer. This study aimed to assess the effectiveness of structured teaching programme on level of knowledge and skill of breast self examination among women. **Objective:** The objectives of the study were to assess the effect of structured teaching programme on level of knowledge and skill of breast self examination, to correlate the level of knowledge and skill of breast self examination and to associate the pretest level of knowledge and skill of breast self examination among women with selected sociodemographic and clinical variables. **Methodology:** The research design adopted was quasi experimental one group pretest-post design. 50 samples were selected by simple random sampling technique. A Structured knowledge questionnaire and checklist to assess the skill of breast self examination. **Results:** The data was analysed using description and inferential statistics. In socio demographic findings, almost half 24 (48%) samples were between the age group of 36-50 years and 28(56%) had educational qualification high school and below. Majority 42(84%) samples were married and 21 (42%) were Hindus. While 35(70%) of them had income less thanRs.10,000 rupees per month. 43(86%) samples were lived in rural areas and 33(66%) belonged to nuclear family. The pretest results shown that none of them had adequate knowledge 13(26%) had moderate knowledge and majority of the samples 37(74%) had inadequate knowledge on breast self examination. During post-test 39(78%) of the samples had adequate knowledge 9(18%) had moderate knowledge and 2(4%) had inadequate knowledge. The calculated paired t test value on knowledge was 19.90 which is highly significant at table value ( $p < 0.001$ ). Regarding skill in pretest 14(28%) of the samples had adequate skill, 20 (40%) had moderate skill and 16(32%) had inadequate skill on breast self examination. During post test 36(72%) of the samples had adequate skill, 12(24%) had moderate skill and 2(4%) had inadequate skill. The calculated paired t test value on skill was -29.965 ( $p < 0.001$ ). There was a moderately positive correlation ( $r = .391, p < .005$ ) between the level of knowledge and skill of breast self examination among women. There was no significant association between pretest level of knowledge and skill of breast self examination with selected socio demographic and clinical variables. **Conclusion:** The structured teaching programme and skill demonstration were effective in improving the knowledge and skill of breast self examination of women.

**Keywords:** Breast self examination, knowledge, skill, structured teaching programme, women.

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### I. INTRODUCTION

"Prevention is better than cure". Breast cancer is one of the leading type of cancer which can be prevented if it identifies early. Breast cancers are malignant tumors that typically begin in the ductal-lobular epithelial cells of the breast and spread via the lymphatic system to the axillary lymph nodes<sup>1</sup>. The rate of breast cancer is increasing due to lack of awareness and nonexistent breast cancer screening program. Breast carcinomas are generally without any symptoms to start with.

In India the incidence of breast cancer is 30 per 100,000 women. Breast cancer is the malignant growth of breast tissue<sup>2</sup>. Implementing an effective, less costly screening program and making the public aware of the early detection method of breast cancer, like breast self examination will be the major challenges in the coming

years<sup>3</sup>. Screening can detect breast cancer at an earlier stage. Ideally screening should be performed for all women from 18 years of age. Earlier detection improves the survival rate.

Breast self examination (BSE) is an third component of breast cancer screening programs. The other two components are mammography and physical examination. Breast self examination is a low cost, useful screening tool. It is a step-by-step method women can use to examine their breasts. However, because more than 40% of breast cancers are detected by the woman herself, self-examination remains an important component of any screening program<sup>4</sup>. Breast self examination is a tool that can be carried out by women themselves and women become familiar with both the appearance and the feel of their breast and detect any changes in their breasts as early as possible<sup>3</sup>.

Breast cancer is the most common malignancy all over the world. Unfortunately half of the cases are detected very late and this leads to increase in mortality rate. Breast self examination helps to detect breast cancer at early stage and also helps to decrease death due to breast cancer. So this made the researcher to undertake a study to assess the knowledge and skill and made to create an awareness among women.

### **Statement of problem**

A study to assess the effect of structured teaching programme on level of knowledge and skill of breast self examination among women in Jubilee Mission Medical College and Research Institute, Thrissur.

### **Objective**

1. To assess the level of knowledge and skill of breast self examination among women before and after intervention.
2. To assess the effect of structured teaching programme on level of knowledge and skill of breast self examination
3. To correlate the level of knowledge and skill of breast self examination among women
4. To associate the pretest level of knowledge and skill of breast self examination among women with selected sociodemographic and clinical variables.

### **Hypotheses**

H<sub>1</sub>. There is significant difference between pre test and post test level of knowledge and skill of breast self examination among women

H<sub>2</sub>. There is significant correlation between the level of knowledge and skill of breast self examination among women.

H<sub>3</sub>- There is significant association between the level of knowledge and skill of breast self examination among women with selected sociodemographic and clinical data variables.

## **II. Materials And Methods**

Quantitative approach was used in the study.

### **Research design**

Quasi experimental one group pretest- posttest research design was used for the study.

### **Variables**

#### **Research variables**

##### **Independent variable**

Structured teaching programme on breast self examination.

##### **Dependent variables**

Level of knowledge and skill of breast self examination among women.

##### **Sociodemographic variables**

It includes age, educational status, marital status, religion, income, area of residence and type of family.

##### **Clinical data variables**

It includes number of children, duration of lactation, age of menarche, age of menopause, previous knowledge of breast self examination, source of information, family history of breast cancer, and reason the importance of breast self examination.

### **Setting of the study**

Jubilee Mission Medical College And Research Institute, Thrissur.

### **Population**

The women aged between 18-60 years.

### **Sample**

The women aged between 18- 60 years old and who met the inclusion criteria.

**Sample size**

50 women.

**Sampling technique**

Probability simple random sampling technique.

**Criteria for sample collection**

**Inclusion criteria**

Women who were:

- between the age of 18-60 years
- willing to participate in the study

**Exclusion criteria**

Women who :

- were not able to read and write Malayalam
- were having breast cancer or on treatment
- have previously taken breast cancer treatment.

**Description of the tool**

**Tools and technique**

The tool consist of three section :Section A, Section B and Section C.

Section A:Socio-demographic variables and Clinical data variables questionnaire

Section B:A structured -Questionnaire to assess the level of knowledge on breast self examination among women, which consist of 25 questions with multiple choices. Minimum score is 0 and maximum score is 25.

Section C : Checklist to assess the level of skill of breast self examination. Total 12 items were included to assess the skill of breast self examination. If the women were able to perform breast self examination on model scored it as yes and awarded one mark and the women unable to perform breast self examination on model scored as No and awarded zero mark. Minimum score is Zero and maximum sore is 25.

**Data collection process**

Permission was obtained from research committee and authorities of Jubilee mission medical college and research institute. After explaining purpose and nature of study informed consent was obtained and selected the samples using simple random technique and they were assured confidentiality and privacy.

On day 1: Pretest on knowledge regarding breast self examination was conducted by using self structured questionnaire. The skill of breast self examination was assessed with a checklist by asking participants to demonstrate the breast self examination on a model individually . The average time taken by each women to complete the knowledge questionnaire and demonstration was 30minutes. Followed by structured teaching programme on breast self examination for women was given using flashcard along with demonstration in a model for 30 minutes and after 3 days, post test on knowledge and skill in breast self examination was assessed by using same tool.

**III. RESULT**

**Table 1:** Distribution of samples according to Socio demographic variables such as age, educational qualification and marital status

N=50

Sociodemographic variables	Frequency (f)	Percentage (%)
<b>Age in years</b>		
18-35	9	18
36-50	24	48
51-60	17	34
>65	0	0
<b>Educational qualification</b>		
High school and below	28	56
Higher secondary	12	24
Graduate	8	26
Post graduate and above	2	4
<b>Marital status</b>		

Single	3	6
Married	42	84
Widow	4	8
Divorce	1	2

Table 1: shows that almost half 24 (48%) samples were between the age group of 36-50 years and 28 (56%) had education qualification high school and below. Majority 42(84%) samples were married.

**Table 2:** Distribution of sample according to Sociodemographic variables such as religion, income, area of residence and type of family.

N=50

Sociodemographic variables	Frequency (f)	Percentage (%)
<b>Religion</b>		
Hindu	21	42
Christian	11	22
Muslim	18	36
Others	0	0
<b>Income per month in rupees</b>		
Less than 10,000	35	70
21,000-30,000	12	24
31,000-40,000	3	6
Greater than 41,000	0	0
<b>Area of residence</b>		
Urban	7	14
Rural	43	86
<b>Type of family</b>		
Nuclear family	33	66
Joint family	17	34

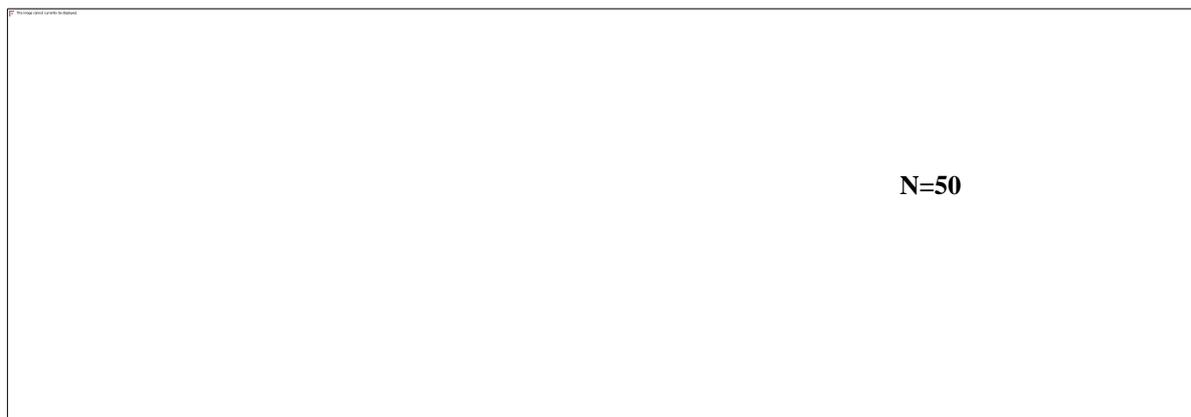
Table 2: shows that majority 21(42%) of the samples were Hindus and 35(70%) of them had income less than 10,000 rupees per month. Almost 43(86%) of the samples lived in rural areas while 33(66%) were belonged to nuclear family.

**Table 3:** Distribution of samples according to clinical variables such as number of children, duration of lactation and age of menarche.

N=50

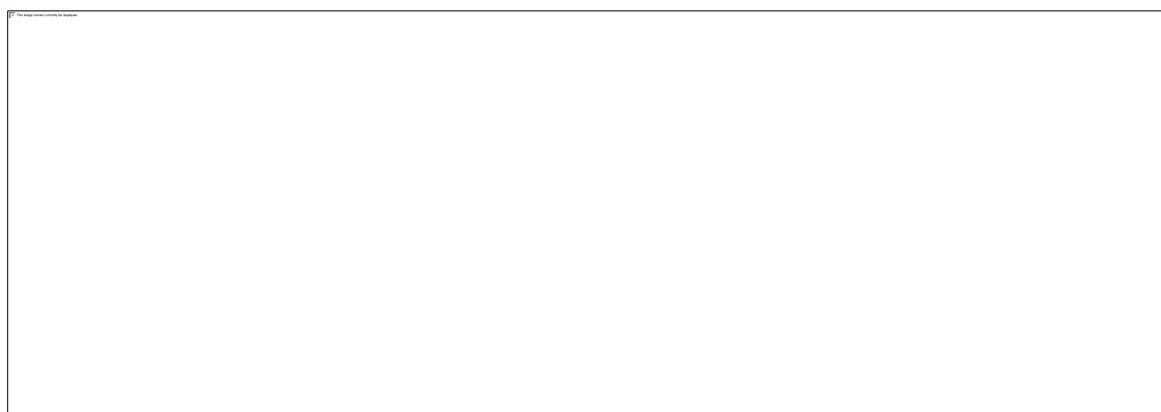
Clinical data variables	Frequency (f)	Percentage (%)
<b>Number of children</b>		
1	5	10
2	18	36
More than 2 children	20	40
No children	7	14
<b>Duration of lactation</b>		
Less than 6 months	0	0
Up to 1 year	4	8
Up to 2 years	32	64
Up to 3 years	7	14
Not applicable	7	14
<b>Age of menarche</b>		
Before 10 years	0	0
10-13 years	25	50
13-16 years	25	50
After 16 years	0	0

Table 3: shows that majority 20(40%) of the samples had children more than two.32(64%) had duration of lactation up to 2 year. All of them attained menarche between the age 10-16 years.



**Figure 1:** Distribution of women based on their pre and post test knowledge on breast self examination.

Figure 1 : Shows that during pretest none of the samples had adequate knowledge , 13 (26%) had moderate knowledge and 37(74%) had inadequate knowledge. During post test 39(78%) had adequate knowledge , 9(18%) had moderate knowledge and 2(4%) had inadequate knowledge.



N=50

**Figure 2:** Distribution of mean pretest and post-test knowledge scores in different domains of knowledge of breast self examination among women.

Data from figure 2 shows that mean post-test knowledge score in different domains of knowledge of breast self examination are higher than the mean pretest knowledge score. The highest increment in the knowledge score was observed in the domain of procedure of breast self examination ,where the mean pretest knowledge was 3.04 and mean post-test knowledge was 8.16 with a high mean difference of 5.12

N=50

**Figure 3:** Distribution of women based on their pre and post test skill on breast self examination.

Figure 3: shows that during pretest 14(28%) had adequate skill, 20(40%) had moderate skill and 16(32%) had inadequate skill. During post test 36(72%) had adequate skill , 12(24%) had moderate skill and 2(4%) had inadequate skill.

**Table 4:** Mean, Standard deviation and t value of pretest and post-test level of skill of breast self examination. **N=50**

Sl. no	Components	Pretest		Post test		t value	df	P value
		Mean	SD	Mean	SD			
1	Level of skill	1.56	1.918	9.88	1.288	-29.965	49	.000

Table 4: Shows that mean post test skill score was higher than mean pretest skill score. The calculated paired t test value between overall pretest and post-test level of skill is -29.965 at p value 0.001. So the research hypothesis is accepted.

**Table 5:** Correlation of level of knowledge and skill on breast self examination. **N=50**

Variables	Mean	SD	Correlation Coefficient(r)	P value
Level of Knowledge	20.64	2.87	.391	.005*
Level of Skill	9.88	1.288		

\*P(<0.05)

Table 5: Shows that there is moderately positive Correlation (r=.391, p<.005) between post test level of knowledge and skill of breast self examination among women. Here It was evident that skill of breast self examination increases as knowledge increases. So the research hypothesis H<sub>2</sub> is accepted.

**Table 6:** Association of pretest level of knowledge and skill of breast self examination with selected sociodemographic variables among women. **N=50**

Sociodemographic variables and clinical variables	Adequate		Inadequate		X <sup>2</sup>	df	p value
	f	%	f	%			
<b>Age in years</b>							
1.18-50	9	27.3	24	72.4	0.082	1	0.775
2.51-65	4	23.5	13	76.4			
<b>Educational qualification</b>							
1.High school and below	5	17.9	23	82.1	2.193	1	0.139
2.Higher secondary and above	8	36.4	14	63.6			
<b>Marital status</b>							
1.Single	1	33.3	2	66.7	5.883	3	0.177
2.Married	9	21.4	33	78.3			
3.Widow	3	75	1	25			
4.Divorce	0	0	1	100			

Not significant P(>0.05)

Table 6:Shows that there is no significant association between knowledge of breast self examination with selected sociodemographic and clinical variables such as age, educational qualification and marital status.

#### IV. Discussion

1 :To assess the level of knowledge and skill of Breast self examination among women before and after intervention.

The study found that in pretest, out of 50 samples majority 37(74%)of the samples had inadequate knowledge, 13(26%)had moderate knowledge, none of them had adequate knowledge on breast self examination. In post test 2(4%)had inadequate knowledge, 9(18%)had moderate knowledge,39(78%)had adequate knowledge on breast self examination.

During pretest 14 (28%) have adequate skill , 20(40%) had moderate skill and 16 (32%) had inadequate skill. During post test 36(72%) have adequate skill, 12(24%) had moderate skill and 2(4%) had inadequate skill. There is significant difference between the level of knowledge and skill of breast self examination among women.

The study findings were supported by a quantitative study to assess the effectiveness of structured teaching programme of knowledge regarding breast self examination among FMPHW 1st year students at Ramzan institute of paramedical sciences, Kashmir, India. The study were conducted among 50 samples. Majority 36(72% ) of girls belongs to the age group of 18-20. The majority of girls live in rural areas 34(68%). The majority 9(18%) had poor knowledge,41(82%) had average knowledge and none of them had good knowledge in pretest. A structured teaching programme on knowledge regarding breast self examination. After intervention,in post test majority 48(96%) had good knowledge, 2(4%) had average knowledge and none of them had poor knowledge. The result showed that post test knowledge score (31.94) was significantly higher than pretest knowledge score (16.78) which shows the effectiveness of structured teaching programme.

2 :To assess the effect of structured teaching programme on level of knowledge and skill of breast self examination.

It was found that mean post test knowledge scores(9.88)are higher than mean pretest knowledge scores(1.56) on all domains. The calculated t value was 19.90 which was significant at (  $p < 0.05$ ). The mean post test skill score was higher than mean pretest skill score. The calculated paired t test value between overall pretest and post-test level of skill is -29.965 at  $p < 0.001$ . Result shows that structured teaching was effective in improving the knowledge and skill of breast self examination among women. Hence the research hypothesis.  $H_1$ :-There is significant difference between the level of knowledge and skill of breast self examination among women was accepted.

A similar study was conducted on effectiveness of structured teaching programme on knowledge and practice regarding breast self examination among college girls in the selected college of Bhilai, Chattisgarh, India. The study were conducted among 30 samples. The result showed that post test knowledge score(25.93) was significantly higher than pretest knowledge score(13.73). The calculated t value was 20.16, shows significant difference between pre and post test score.<sup>5</sup>

3 : To correlate between the level of knowledge and skill of breast self examination among women.

There is moderately positive correlation( $r = .391$ ,  $p < .005$ ) between level of knowledge and skill of breast self examination among women. Result shows that as knowledge increases skill also increases. Hence the research hypothesis  $H_2$ -There is significant correlation between the level of knowledge and skill of breast self examination among women was accepted.

A similar study was conducted by Rachna conducted a study to assess the knowledge regarding breast self examination among nursing students of RP. The result showed that there is no correlation between breast self examination among the scholars and therefore the variables like age, education standing, legal status, style of family.

4 : To find the association of the pretest level of knowledge and skill of breast self examination among selected sociodemographic and clinical variables.

There is no significant association between pretest level of knowledge and skill of breast self examination with selected sociodemographic and clinical variables such as age in years, education qualification, religion, income, area of residence, type of family and marital status, number of children, duration of lactation, age of menarche and age of menopause among women. Hence the research hypothesis  $H_3$ - There is significant association between the level of knowledge and skill of breast self examination with selected sociodemographic and clinical data variables was not accepted.

## V. Conclusion

Present study was conducted to assess the effect of structured teaching programme on level of knowledge and skill of breast self examination among women. Findings of present study showed that structured teaching programme was effective in improving the knowledge and skill of women. The researcher concluded that structured teaching programme is an effective educational intervention in improving the knowledge and skill regarding breast self examination among women.

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