



Full Length Research Article

## A Study To Assess The Effectiveness of Structured Teaching Programmed on Breast Self Examination Among Adolescent Girls Studying in Shri K. Ramachandran College of Nursing, Tirunelveli District, Tamil Nadu, India.

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### ABSTRACT

This study was designed to assess the effectiveness of structured teaching programmed on knowledge regarding breast self examination among adolescent girls on 1<sup>st</sup> year diploma in nursing and B.sc nursing students. A one group pre test and post test experimental research design was adopted to assess the knowledge of breast self examination of adolescent's girls. A non probability purposive sampling technique was used to obtain 100 students who are studying 1<sup>st</sup> year of diploma and B.sc nursing. The tool used was a structured interview questionnaire examines sample characteristics, numerical rating scale for knowledge assessment. Descriptive statistics were used and deemed appropriate chi-square and paired t-test was used for inferential statistics, pre and post test level of knowledge was assessed for all. Findings revealed in the pre test 66 (66%) had inadequate knowledge and 44 (44%) had moderate knowledge. In the post test 33 (33%) had moderate knowledge and 67 (67%) had adequate knowledge. In this study indicates that structured teaching programmed on effective, easy and simple way to explain the techniques of breast self examination for adolescent's girls to gain their level of knowledge.

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### Introduction

Breast is the symbol of femininity. Every year we celebrate the Women's Day, Inspiring the women of today to stride ached in life. In India Women are becoming more and more aware of their health status as a result of modern education, electronic, print media and health agencies. While women have made progress in most of the field but still she tends to inexplicably neglect her own health. Though in the present age women are aware of their problems, the readiness to seek help from health personnel is hindered by economic constraints, Social stigma and rigid superstitious beliefs regarding health problems. Hence it is necessary to provide information to women regarding their health problems through the available resources Brunner and suddarth (2008)

According to Lewis (2007) invariably most common health problems seen among women are cancer. Cancer is a group of many diseases of multiple causes that can arise in any cell of the body capable of evading regulatory controls over proliferation

and differentiation. And the second most prevalent cancer after cervix is breast cancer.

Black (2005) defines breast cancer as a group of malignant diseases that commonly occur in the female breast than in the male breast. Breast cancer is one of the commonest causes of death in many developed countries in the middle age women and is becoming frequent in the developing countries too. Breast cancer is the leading cause of cancer among women regardless of race and ethnicity. Worldwide 10 million new cases of invasive cancer are diagnosed each year. 10% arise in the breast, which makes it the second most common site of malignant neoplasm after lung (WHO- 2001).

Brunner and Suddarth (2008) stated that women should begin practicing BSE at the time of their 1<sup>st</sup> gynecologic examination, which usually occurs in their late teens or early 20s. Optimal timing for BSE is 5 to 7 days after menses begins for premenopausal women and once monthly for postmenopausal women.

### *Problem identification and its significance*

Mammary glands develop as solid extension of the ectoderm into the underlying mesenchyme. These extensions occur along two thickened strips of ectoderm which starts at the axilla and extend to the inguinal region. It can spread to other parts of the body without invading the auxiliary nodes even when the primary breast tumor is small. Breast cancer is the third most common cancer in the world. In India breast cancer is the second leading cancer in female.<sup>4</sup> the magnitude of cancer problem is increasing day by day. The major risk factors for breast cancer are family history of breast cancer, menarche before 12 years of age, menopause after 55 years of age, obesity, excessive exposure to the ionizing radiations before 30 years of age.

India has only 15% patients present in the localized stage, in 75%, regional lymph nodes are already involved while 10% have distant spread at the time of reporting<sup>6</sup>. This is due to lack of awareness and nonexistent breast cancer screening programmes. Early detection and prompt treatment offer the greatest chances of long term survival. Breast self examination (BSE) seems to be an important viable optional substitute for early detection of cancer. The Indian Council of Medical Research showed that 10 out of every 100,000 women living in Delhi, Mumbai, Chennai, and Bangalore were diagnosed with breast cancer about 10 years ago, compared with 23 women per every 100,000 today. With an increasing number of younger women becoming susceptible to the disease, India faces a growing breast cancer epidemic. A new global study estimates that by year 2030, the number of new cases of breast cancer in India will increase from the current 1, 15,000 to around 2, and 00,000 per year<sup>7</sup>. Both globally and on the Indian scene, there is more than 20% increase in breast cancer since 2008 with 1.7 million new cases diagnosed in women in 2012; and there were 6.3 million women alive with breast cancer in the previous five years. Breast cancer is also the most common cause of cancer deaths among women (5, 22,000 deaths in 2012) and the 11 most frequently diagnosed cancer among women in 140 of 184 countries worldwide. It now represents one in four of all cancers in women.

Breast self examination is simple, quick and cost free procedure. Performing monthly Breast self examination was first advocated by the Colombia university surgeon Cushman experts. They recommended the women over age of 20 years perform a monthly breast self examination. Breast self examination involves feeling one's breast in a specific way at the same time in each month and distinguish suspicious lumps from normal lumps and bumps. Breast self examination is a procedure performed by an individual to physically & visually examine herself for changes in breast. Breast self examination is an important component of health promotion and maintenance. Providing education and encouraging the women to perform breast self examination is recommended to decrease the mortality rates from breast abnormality disorders. Breast self breast examination makes women more aware which may lead to an earlier diagnosis of breast cancer. To investigate the awareness of self breast examination among women patients and female attendees visiting a teaching hospital.

- To access the pre test level of knowledge regarding breast self examination among adolescent girls.

- To access the post test level of knowledge regarding breast self examination among adolescent girls.
- The compare the pre test and post test level of knowledge regarding breast self examination among adolescent girls.
- To associate the post test level of knowledge about breast self examination among adolescent girls with their selected demographic variable age, sex, education, education of mother and income of family.

### **Materials and methods**

#### *Study area*

The study was chosen on the basis of availability of samples and the co-operation extended by the management. This study was conducted at Sri.K Ramachandren Naidu College of Nursing at Sankarenkovil, Tirunelveli district, Tamilnadu.

#### *Population*

The target population consists of adolescent girl's age between 17-20 years.

#### *Sample design*

The research design adopted for the present study was one group pre test and post test experimental research design.

#### *Sample population*

Sampling criteria involves selecting cases that meet some predetermine criteria of importance. The criteria for sample selection are mainly under two handling, which includes the inclusion and exclusion criteria.

Inclusive criteria:

- The students available during the time of data collection period.
- Girls who were able to read and write Tamil and English.
- Adolescent girls who attained menarche.

Exclusive criteria:

- Not willing to participate in the study.

#### *Study population*

The sample size was 100 adolescents' girls at Sri. K. Ramachandren College of Nursing.

#### *Data collection methods*

Data collection was done for the period of one week on 11-08-2018 to 17-08-2018. The investigator used structured knowledge questionnaire to assess pre test and post test knowledge level regarding breast self examination among adolescent girls. After conducting pre test the researcher given the structured teaching 45 minutes to the samples regarding breast self examination with the help of flash card. After 4<sup>th</sup> day i.e. 14-0-2017 again conducted post test with that same questionnaire to the same samples.

After the data collection, the data were organized, tabulated, summarized and analyzed. The data were analyzed according to the objectives of the study by using both descriptive and inferential statistics.

#### *Data analysis*

Data collected was analyzed using both descriptive and inferential statistics, such as mean, standard deviation, chi-square and paired t-test.

*Descriptive statistics*

- Frequency and percentage distribution was used to analyze the demographic variables among adolescent girls.
- Frequency and percentage distribution was used to assess the pre test and post test knowledge regarding breast self examination among adolescent girls.
- Mean value and standard deviation were used to assess the pretest and post test level of knowledge regarding breast self examination among adolescent girls.

*Inferential statistics*

- Paired t-test was to compare the pre and post test level of knowledge regarding breast self examination among adolescent girls before and after structured teaching programme.
- Chi square test was used to associate the post test level of knowledge score with demographic variables regarding breast self examination among adolescent girls.

**Table -1** Frequency and percentage distribution of demographic variable among adolescent girls.

N=100			
S.No	Demographic variables	Frequency (F)	Percentage (%)
1	<b>Age</b>		
	a. 17- 18 years	76	76
	b. 18-19 years	24	24
	c. 19-20 years	-	-
	d. Above 20 years	-	-
2	<b>Sex</b>		
	a. Female	100	100
3	<b>Education</b>		
	a. Diploma in Nursing	40	40
	b. B.sc I st year	60	60
4	<b>Education of mother</b>		
	a. Illiteracy	07	07
	b. Primary school	28	28
	c. Higher secondary	55	55
	d. Degree	10	10
5	<b>Income of the family</b>		
	a. Rs.1000-3000	12	12
	b. Rs.3001-5000	25	25
	c. Rs. 5001-10,000	52	52
	d. Rs.Above 10,001	11	11

**Table -2** Frequency and percentage distribution of pre test level of knowledge regarding breast self examination among adolescent girls

N=100			
S.No	Pre test level of knowledge	Frequency(f)	Percentage (%)
1	Inadequate knowledge	66	66
2	Moderate knowledge	44	44
3	Adequate knowledge	-	-

**Table-3** Frequency and percentage distribution of post test levels of knowledge regarding breast self examination among adolescent girls.

N=100			
S.No	Level of knowledge	Frequency	Percentage
1	Inadequate knowledge	-	-
2	Moderate knowledge	33	33
3	Adequate knowledge	67	67

**Table -4** Comparison between the pre test and post test level of knowledge regarding breast self examination among adolescent girls.

Intervention	Mean	Mean Difference	Standard Deviation	't' Value
Before structured teaching	8.08	11.32	0.65	17.47
After structured teaching	19.40			

$P < 0.05$

**Table 5** Association of post test level of knowledge regarding breast self examination among adolescent girls with their selected demographic variables.

S.No	Demographic variable	Inadequate knowledge		Moderate knowledge		Adequate knowledge		'p' value	x <sup>2</sup> value
		No	%	No	%	No	%		
1.	Age								
	a. 17-18years	-	-	20	20	35	35	9.49	5.78
	b. 18-19years	-	-	13	13	32	32		df 4
	c. 19-20years	-	-	-	-	-	-		NS
	d. above 20years	-	-	-	-	-	-		
2	Sex								0.0
	a. Female	-	-	33	33	67	67	3.84	df 1
									NS
3	Education								0.0
	a. Diplamo in Nursing	-	-	13	18	20	22	12.59	df 6
	b. B.Sc I years	-	-	20	25	47	35		NS
4	Education of mother								
	a. Illiteracy	-	-	04	04	03	03	12.59	11.089
	b. Primary school	-	-	10	10	18	18		df 6
	c. Higher Secondary	-	-	16	16	39	39		NS
	d. Degree	-	-	03	03	07	07		
5	Income of family								
	a. Rs.1000-3000	-	-	07	07	05	05	12.59	0.744
	b. Rs.3001-5000	-	-	10	10	15	15		df 6
	c. Rs.5001-10,000	-	-	13	16	39	39		NS
	d. Above 10,001	-	-	03	03	08	08		

(NS-Non Significance)

**Discussion**

Results of the present study revealed total 100 participants, one third of the study participant’s fall under 17- 18 years of age, 100% study participants were female. More than half of them (60%) were B.sc nursing, 55% of the study participants mothers were educated at the level of higher secondary, majority (52%) of the them having Rs. 5001-10,000 income of family. The study was in line with Ibitoye et al (2019) which revealed with the mean of age 13.21+5.68. The present study findings are further supported by Sama etal (2017) and Fon Peter Nde etal (2015) who were conducted the study participants are age between 17-30 years.

In the present study pre test it reveals that majority of participants 66% were had inadequate knowledge and 44% were had moderate knowledge. Where as in post test 67% were had adequate knowledge and 33% were had moderate knowledge. In the pre test and post test level of knowledge observed by numerical rating scale. The findings of the present study support the findings of Ruth E Ludwick (2001) it reveals one time intervention can be successful in increasing breast self examination practice and knowledge of breast self examination and in adolescents. The present study findings are further supported by Clark JK etal (2000) in his study found that a one hour lesson can improve their knowledge and attitudes of adolescent are girls with respect to breast self examination. In this study the result shows that there is the level of knowledge score measured by numerical Rating scale of adolescent’s girls with in the pre test and post test showed that the level of knowledge among the post test were found to be significantly increased (p<0.05) from a mean of 19.40 among post test to 8.08 among pre test. The findings of the study supported by the study conducted by Hiwot Abera etal (2017) which revealed both the

knowledge and practice competency scores showed highly significant increment after the intervention. Ibitoye OF etal (2019) who found there was a significant difference among the student’s pre and post test knowledge.

It reveals that there is no significant difference between the level of knowledge in age (9.49), sex (3.84), education (12.59), education of mother’s (12.59), and income of family (12.59). Then study was line in with Josephine Jacqueline Mary N.I. etal (2017) in her study found there is no association between the selected demographic variables.

**Conclusion**

Based on the study findings it was concluded that structured teaching programmed was effective on increasing their level of knowledge among adolescent’s girls. In the pre test 66 (66%) had inadequate knowledge and 44 (44%) had moderate knowledge. In the post test 33(33%) had moderate knowledge and 67 (67%) had adequate knowledge. Structured teaching programmed was easy and simple way to understand the techniques of breast self examination for adolescent’s girls to do the periodic checkup for prevention of breast cancer.

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