

# A study to assess the effectiveness of planned demonstration programme on knowledge and practice of self-breast examination on prevention and early detection of breast cancer among women of a selected rural area of Mysuru.

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**ABSTRACT:** This study has been undertaken to assess the effectiveness of planned demonstration programme on knowledge and practice of self breast examination on prevention and early detection of breast cancer among women of a selected rural area of Mysuru. A Pre-experimental One group pre test post test design was used and 60 rural women were selected using convenient sampling technique. Pilot study was conducted, the tool and study design were found to be feasible. Data were collected using a structured knowledge questionnaire and observation check list. A demonstration programme was conducted for rural women. The data were collected and analysed using descriptive and inferential statistics. The study results revealed that after demonstration programme 29 (48.3%) has adequate practice and 31 (51.6%) has inadequate practice regarding self breast examination. the mean difference between pre test and post test knowledge scores of rural women is 18.9 and obtained paired 't' value for knowledge is 33.3 which is significant at 0.05 level of significance. The mean difference between pre test and post test practice scores of rural women is 7.2 and obtained paired 't' value for practice is 20.1 which is significant at 0.05 level of significance. It was concluded that demonstration programme was effective in increasing the knowledge and practice of rural women on self breast examination on prevention and early detection of breast cancer among women of a selected rural area of Mysuru". Therefore the study recommends that, it is essential to organize health campaigns and educational programmes to enhance the knowledge and practice of rural women regarding self breast examination.

**Keywords:** Self breast examination, Knowledge, Practice, Demonstration programme

## I. INTRODUCTION

Throughout history, the female breast has been regarded as a symbol of beauty, sexuality and motherhood. Any actual or suspected disease or injury affecting breast tends to reflect the prevailing societal view of the breast. Psychological problems of women with breast cancer were mental health, fatigue, anxiety, low self esteem and confidence, concerns about weight gain and loss, fear of disease recurrence, depression, and feeling of embarrassment about showing their naked body. Women who experienced breast cancer at an early age had poor mental health faced with a range of greater concerns regarding body image.

According to statistics available with the Kidwai Memorial Institute of Oncology (KIMO), the authorised hospital to register incidence of cancer in Karnataka, breast cancer amounts to 27 percentage of all cancers suffered by women in the state (2012).

A breast self examination is a procedure in which a women examines her own breast, for any change or problems, that may develop, like lump ,changes in size, shape , rash , pain or discharge of the nipple. Breast cancer.org believes that breast self- examination is a useful and essential screening strategy, especially when used in combination with regular physical exams by a doctor and mammography. Recommended preventive techniques to reduce breast cancer mortality and morbidity include breast self-examination and mammography

Due to lack of access to diagnostic facilities, especially for women in low resource settings, it is essential to empower them with BSE as a primary modality for screening With the rising incidence of breast cancer and absence of any uniform breast screening strategy in most of the nations, it is important to provide information regarding breast self examination.

**OBJECTIVES:**

The objectives of the study are

1. To assess the existing knowledge and practice on prevention and early detection of breast cancer among women.
2. To find the effectiveness of planned demonstration on self breast examination on prevention and early detection of breast cancer in terms of gain in knowledge scores and practice scores among women.
3. To determine the relationship between knowledge and practice of rural women regarding self breast examination.
4. To find out the association between level of knowledge and practice of women and their selected personal variables.

**HYPOTHESES:**

The following hypotheses were formulated for the study to be tested at 0.05 level of significance

- H1: There will be significant difference between pre test and post test knowledge scores regarding self breast examination among women.
- H2: There will be significant difference between pre test and post test practice scores regarding demonstration of self breast examination among women.
- H3: There will be significant relationship between knowledge and practice of women regarding self breast examination
- H4: There will be significant association between level of knowledge of women and their selected personal variables.
- H5: There will be significant association between level of practice of women and their selected personal variables.

**METHODOLOGY:**

The research study was conducted in selected rural area of Mysuru district in Karnataka state. 60 rural women were taken by using non-probability convenience sampling technique. Pre experimental one group pre-test post-test design was used as the research design. The knowledge and practice of rural women assessed through structured knowledge questionnaire and observation check list.

**RESULTS:****SECTION I****DESCRIPTION OF SELECTED PERSONAL VARIABLES**

The study consists of 60 samples. The selected personal variables are described under subheadings shown in Table 1

**Table 1**

**Frequency and percentage of distribution of samples according to their selected personal variables**

Sl no	Sample characteristics	Frequency	Percentage (%)
<b>n= 60</b>			
1.	Age in years		
	1.1 25-36	42	70
	1.2 37-48	12	20
	1.3 49-60	06	10
2.	Educational qualification		
	2.1 Up to plus two	22	36.6
	2.2 Diploma/ Degree	38	63.3
	2.3 Post graduation	00	00
3.	Religion		

3.1 Hindu	60	100
3.2 Muslim	00	00
3.3 Christian	00	00
4. Marital status		
4.1 Single	31	51.6
4.2 Married	29	48.3
4.2 Widow	00	00
5. Family history of breast cancer		
5.1 Yes	01	16.5
5.2 No	59	98.3
6. Exposure to mass media		
6.1 News paper	18	30
6.2 TV	05	8.3
6.3 Any other	37	61.6
7. Previous exposure to any educational Programme regarding SBE		
7.1 Yes	33	55
7.2 No	27	45

The data presented in the Table 1 shows that among rural women majority of subjects 42(70%) were in the age group of 25-36 yrs. With regard to education, among rural women 22 (36.6%) completed their plus two and remaining 38 (63.3%) completed their diploma or degree. 31 (51.6%) among rural women are unmarried and 29 (48.3%) samples are married. Majority of rural women 59 (98.4%) have no family history of breast cancer. With regard to exposure to mass media 18(30%) is reading news paper and 5 (8.3%) are watching TV the remaining 37(61.6%) are using other mass media. 33 (55%) has previous exposure to educational programme regarding SBE and the remaining 27(45%) has no exposure to any educational programme regarding SBE

## SECTION II

### Effectiveness of planned demonstration programme on self breast examination on prevention and early detection of breast cancer

#### a. Frequency and percentage distribution of rural women according to their knowledge and practice

The knowledge and practice scores of rural women were distributed according to the following categories viz, poor knowledge (0-18), average knowledge (19-26), good knowledge (27-35): Poor practice (0-12), Good practice (13-16).

**Table 2**

**Frequency and percentage distribution of level of knowledge of rural women according to their pre test and post test scores n=60**

Level of Knowledge	Pre test	Post test
	f (%)	f (%)
Poor knowledge (0-18)	56(93.3%)	--
Average knowledge (19-26)	4(6.6%)	9(15%)
Good knowledge (27-35)	--	51(85%)

From the Table 2 it is evident that, majority of rural women had a poor knowledge regarding self breast examination during pre test. After demonstration programme 9(15%) has average knowledge and 51 (85%) has good knowledge regarding self breast examination.

**Table 3**

**Frequency and percentage distribution of level of practice of rural women according to their pre test and post test scores**

**n= 60**

Level of Practice	Pre test	Post test
	f (%)	f (%)
Adequate Practice (13-16)	4(6.6%)	29(48.3%)
Inadequate Practice (0-12)	56(93%)	31(51.6%)

From the Table 3 it is evident that, majority of rural women had a poor practice regarding self breast examination in pre test. After demonstration programme 29 (48.3%) has adequate practice and 31 (51.6%) has inadequate practice regarding self breast examination.

**Table 4**

**b. Mean, median, range and standard deviation of pre test and post test knowledge scores and practice scores**

**n= 60**

	Knowledge				Practice			
	Mean	Median	SD	Range	Mean	Median	SD	Range
<b>Pre test</b>	10.06	9	3.6	20-4	5.0	4.5	2.5	14-2
<b>Post test</b>	29	29.4	2.6	33-22	12.2	12	1.8	16-9

The data presented in the Table 4 shows that, the pre-test knowledge mean score is 10.06 with SD  $\pm$  3.6 and the pre-test practice mean score is 5 with SD  $\pm$ 2.5. It also shows that, the post-test knowledge mean score is 29 with SD  $\pm$  2.6 and the post-test practice mean score is 12.2 with SD  $\pm$ 1.8.

**c. Significance of difference between the mean pre test and post test knowledge scores regarding self breast examination among rural women.**

To find the significance of difference in the mean pre test and post test knowledge scores of rural women regarding self breast examination for the prevention and early detection of breast cancer. Paired' test was computed and the findings are presented in Table 5. The null hypothesis is stated as follows;

$H_{01}$ : There will be no significant difference between the mean pre test and post test knowledge scores of rural women regarding self breast examination for the prevention and early detection of breast cancer.

**Table 5**  
**Mean, mean difference, standard deviation difference, standard error and paired 't' value of pre test and post test knowledge scores of rural women**

n=60					
Knowledge Scores	Mean	Mean Difference	SD	SE	Paired t' value
Pre test	10.06	18.9	±1	0.57	33.3*
Post test	29				

$t_{(59)}=1.672$ ;  $p<0.05$ \* Significant

The data presented in the Table 5 shows that the mean difference between pre test and post test knowledge scores of rural women is 18.9 and obtained paired 't' value for knowledge is 33.3 which is significant at 0.05 level of significance. Hence, the null hypotheses  $H_{01}$  is not accepted and research hypotheses is accepted. It is inferred that, the rural women had significantly good knowledge after the demonstration programme.

**d. Significance of difference between the mean pre test and post test practice score of rural women regarding self breast examination.**

To find the significance of difference in the mean pre test and post test practice scores of rural women regarding self breast examination for the prevention and early detection of breast cancer. Paired 't' test was computed and the findings are presented in Table 6. The null hypothesis is stated as follows;

$H_{02}$ : There will be no significant difference between the mean pre test and post test practice scores of rural women regarding self breast examination for the prevention and early detection of breast cancer.

**Table 6**  
**Mean, mean difference, standard deviation difference, standard error and paired 't' value of pre test and post test practice scores of rural women**

n = 60					
Practice Scores	Mean Difference	Mean Difference	SD	SE	Paired t' value
Pre test	5	7.2	±0.7	0.35	20.1*
Post test	12.2				

$t_{(59)}=1.672$ ;  $p<0.05$ \* Significant

The data presented in the Table 6 shows that the mean difference between pre test and post test practice scores of rural women is 7.2 and obtained paired 't' value for knowledge is 20.1 which is significant at 0.05 level of significance. Hence, the null hypotheses  $H_{02}$  is not accepted and research hypotheses is accepted. It is inferred that, the rural women had significantly good practice after the demonstration programme.

**SECTION III**

**e. Relationship between knowledge and practice of rural women regarding self breast examination**

In order to find out the correlation of knowledge, practice scores of rural women regarding self breast examination, a correlation coefficient was computed by Karl Pearson's Co efficient of correlation. The data are presented in Table 7

To test the statistical significance the null hypotheses stated as:

H<sub>05</sub>: There will not be any significant relationship between knowledge and practice of rural women.

**Table 7**

**Correlation coefficient of knowledge and practice scores of rural women regarding self breast examination**

**n= 60**

SCORES	GROUPS	
	Mean Score	Correlation Co-efficient
Knowledge scores	5.0	0.47
Vs		
Practice scores	12.2	

r (59)= 1.64; P =0.05

The data presented in table 7 shows that the correlation between knowledge and practice scores of rural women regarding self breast examination is found to be not significant at 0.05 level of significance. . Hence, the null hypotheses H<sub>02</sub> is accepted and research hypotheses is not accepted. It is inferred that, there is no correlation between practice and knowledge scores of rural women regarding self breast examination.

#### SECTION IV

**Association between level of knowledge and practice of rural women regarding self breast examination with their selected personal variables.**

Chi square values were computed to ascertain the association between knowledge and practice scores of rural women with their selected personal variables. The result is presented under following sections.

##### a. Association between level of knowledge of women and their selected personal variables

To find out the association between level of knowledge and their selected personal variables chi square was computed and to test the statistical significance, following null hypotheses is stated:

H<sub>03</sub>: There will be no significant association between level of knowledge of women and their selected personal variables.

**Table 8**

**Chi-square values between knowledge scores of rural women and their selected personal variables**

**n=60**

Sl no	Sample Characteristics	Poor Knowledge	Average Knowledge	Good Knowledge	Chi-square Value
1	Age in years				
	1.1 25-36	45	04	00	0.96
	1.2 37-48	11	00	00	(Fishers exact test
	1.3 49-60	00	00	00	
2	Educational Qualification				
	2.1 Up to plus two	21	01	00	0.25
	2.2 Diploma / Degree	35	03	00	(Fishers exact test
	2.3 Post graduation	00	00	00	
3	Marital status				
	3.1 Single	30	02	00	0.019
	3.2 Married	26	02	00	(Fishers exact test
	3.3 Widow	00	00	00	
4	Family history of breast cancer				
	4.1 Yes	01	00	00	0.07
	4.2 No	55	04	00	(Fishers exact test
5	Exposure to mass media				
	5.1 News paper	16	02	00	12.1*

	5.2 TV	03	03	02	(Fishers exact test
	5.3 Anyother	37	00	00	
6.	Previous exposure to any educational programme regarding SBE				
	6.1 Yes	30	03	00	0.09
	6.1 No	26	01	00	(Fishers exact test

$$\chi^2_{(1)}=3.84, \chi^2_{(2)}=5.99, \chi^2_{(3)}=7.82, \chi^2_{(4)}=9.49$$

$$*p<0.05$$

$$p>0.05$$

The data presented in Table 8 shows that, the computed Chi-square value for the association of level of knowledge of rural women regarding self breast examination with their selected personal variables is found to be not significant at 0.05 levels of significance except for knowledge having significant association with exposure to mass media at 0.05 level of significance. Hence, the findings partially support the null hypothesis. Inferred that exposure to mass media is associated with level of knowledge.

#### b. Association between level of practice of women and their selected personal variables

To find out the association between level of practice and their selected personal variables, chi square was computed and to test the statistical significance, following null hypotheses is stated:

H<sub>04</sub>: There will be no significant association between level of practice of women and their selected personal variables.

**Table 9**  
Chi-square values between practice scores of rural women and their selected personal variables

Sl no	Sample Characteristics	Poor Practice	Good Practice	Chi-square Value
		n= 60		
1	Age in years			
	1.1 25-36	04	45	0.96
	1.2 37-48	00	11	(Fishers exact test
	1.3 49-60	00	00	
2	Educational Qualification			
	2.1 Up to plus two	02	20	0.32
	2.2 Diploma / Degree	02	36	(Fishers exact test
	2.3 Post graduation	00	00	
3	Marital status			
	3.1 Single	02	30	0.01
	3.2 Married	02	26	(Fishers exact test
	3.3 Widow	00	00	
4	Family history of breast cancer			
	4.1 Yes	00	01	0.07 <sup>#</sup>
	4.2 No	04	55	
5	Exposure to mass media			
	5.1 News paper	01	17	9.8*
	5.2 TV	02	03	
	5.3 Anyother	01	39	
6.	Previous exposure to any educational programme regarding SBE			
	6.1 Yes	02	31	0.69 <sup>#</sup>
	6.1 No	02	25	

$$\chi^2_{(1)}=3.84, \chi^2_{(2)}=5.99$$

$$\#-Yates Correction$$

$$*p<0.05$$

$$p>0.05$$

The data presented in Table 9 shows that, the computed Chi-square value for the association of practice of rural women regarding self breast examination with their selected personal variables is found to be not significant at 0.05 levels of significance except for level of practice having significant association with exposure to mass media at 0.05 level of significance. Hence, the findings partially support the null hypothesis H<sub>04</sub>. Inferred that exposure to mass media is associated with level of practice.

#### CONCLUSION:

The findings of the study revealed that, the mean difference between pre test and post test knowledge scores of rural women is 18.9 and obtained paired 't' value for knowledge is 33.3 which is significant at 0.05 level of significance and the mean difference between pre test and post test practice scores of rural women is 7.2 and obtained paired 't' value for knowledge is 20.1 which is significant at 0.05 level of significance. It was found that after the planned demonstration programme the knowledge and practice of rural women is increase. The



correlation between knowledge and practice scores of rural women regarding self breast examination is found to be not significant at 0.05 level of significance. There is no correlation between practice and knowledge scores of rural women regarding self breast examination. The computed Chi-square value for the association of level of knowledge of rural women regarding self breast examination with their selected personal variables is found to be not significant at 0.05 levels of significance except for knowledge having significant association with exposure to mass media at 0.05 level of significance. Hence, the findings partially support the null hypothesis. Inferred that exposure to mass media is associated with level of knowledge. The computed Chi-square value for the association of practice of rural women regarding self breast examination with their selected personal variables is found to be not significant at 0.05 levels of significance except for level of practice having significant association with exposure to mass media at 0.05 level of significance. Hence, the findings partially support the null hypothesis  $H_{04}$ . Inferred that exposure to mass media is associated with level of practice. This fact stresses the need to spread the message through the health education programme in institutional settings as well as in the community setting regarding breast cancer and breast cancer screening programmes.

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