

Effectiveness of Video Assisted Teaching v/s Planned Demonstration Program on knowledge and competency in Self Breast Examination among female school teachers of Mysuru

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ABSTRACT:

This study has been undertaken to create awareness on breast cancer among women and to make the subjects competent in SBE as a part of primary prevention. The study adopted an evaluative approach- Quasi-experimental design with non equivalent Control group- Experimental groups. Cluster sampling technique was used to select the schools and convenience sampling technique was used to select the 150 female teachers from the selected schools of Mysuru. Results of the study revealed that educational interventions were effective in improving the knowledge and competency of school teachers regarding SBE

INTRODUCTION

Globally, breast cancer is the most common malignant neoplasm among women. In India, it accounts for the second most common cancer in women and in the present scenario, roughly 1 in 26 women are expected to be diagnosed with breast cancer in their lifetime. In Karnataka, according to ICMR statistics breast cancer incidence is increased to 34.1% per 100,000 in 2008. Breast cancer is distinguished from other types of cancer by the fact that it occurs in a visible organ and be detected and treated at an early stage.

Recommended preventive techniques to reduce breast cancer mortality and morbidity include self breast examination (SBE), clinical breast examination (CBE), and mammography. CBE and mammography require hospital visit and specialized equipments and expertise whereas SBE is an inexpensive tool that can be carried out by women themselves. Even though SBE is a simple, quick, and cost-free procedure, the competency of SBE is low among women. Lack of time, lack of self-confidence in their ability to perform the technique correctly, fear of possible discovery of a lump, and embarrassment associated with manipulation of the breast have been cited as reasons for not practicing SBE. Early detection of breast cancer is of great importance to improve women's health and to decrease the cost related to cancer death.

OBJECTIVES

1. To assess the knowledge & competency of female school teachers regarding self breast examination
2. To assess & compare the effectiveness of Video Assisted Teaching and Planned Demonstration Programme on self breast examination among female school teachers
3. To determine the association between knowledge and the selected personal variables of school teachers.

HYPOTHESIS

H₁: There will be no statistically significant difference between the mean post test knowledge scores of school teachers in control group and experimental groups

H₂: There will be statistically significant association between the between knowledge and the selected personal variables of teachers

MATERIALS & METHODS: RESEARCH APPROACH

The study adopted an evaluative approach- Quasi-experimental design with non equivalent Control group- Experimental group design.

SCHEMATIC REPRESENTATION OF STUDY DESIGN

Groups	Pre Day -1	test Intervention Day 2	Post test 1 Day 9
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Exp Group I	SKQ Observation Checklist	VAT	SKQ Observation Checklist
Exp Group II	SKQ Observation Checklist	PDP	SKQ Observation Checklist
Control Group	SKQ Observation Checklist	-	SKQ Observation Checklist

Setting: Study was conducted in selected schools of Mysuru

Sample Size: 150 female school teachers from the selected schools (50 each in control and experimental groups)

Sampling Technique: Cluster sampling technique was used to select the schools and convenience sampling technique was used to select the 150 female teachers from the selected schools.

INCLUSION CRITERIA

- Female school teachers who are in the age group of 25-55 years

EXCLUSION CRITERIA

- Female school teachers who are not willing to participate in the study.
- Female school teachers who have the previous history of lumps in breast and have undergone surgery in breast.

Tools for data collection

- Personal proforma to assess the selected personal variables of school teachers
- Self administered Structured Knowledge Questionnaire to assess the knowledge regarding of SBE(SKQ) . The SKQ consisted of 27 items . Each item carried 4 options and the total score ranged from 0- 27. Further the tool was arbitrarily divided as poor knowledge - 0-18 (less than 50%), Average knowledge – (19- 22), Good knowledge – (23- 27)
- Observation Check List to assess the Competency of female school teachers regarding SBE Total score ranged from 0-12. Further the tool was arbitrarily divided as poor competency - 0-10 (less than 90– (19%), - 22), Good competency – 11-12(Above 90%)

Tools were content validated by nine experts from the field of Medicine (2)and Nursing (7)..Video on SBE and teaching material for planned demonstration programme on SBE were also content validated by the subject experts. Split half technique was used to assess the reliability of SKQ and inter- rater method was used for the Structured observation Check list (SOC). Reliability coefficient of SKQ was 0.9 and that of SOC was 0.8 and hence the tools were found reliable

Pilot study was conducted to assess the feasibility of study design .Ethical permission to conduct the study was obtained from the internal ethical clearance committee of the institution. An informed consent from participants was obtained prior to the data collection procedure. Data related to the knowledge of school teachers were collected using SKQ. Each respondent took approximately 10- 15 minutes for expressing pretest knowledge.

SOC Was used to assess the competency of school teachers regarding SBE Each respondent took approximately 10- 15 minutes for demonstrating the competency on SBE.

Video on SBE was conducted for the subjects in the experimental group I . All subjects have done the return demonstration of SBE on a manikin after the video teaching . Each subject took approximately 10- 15 minutes for the re- demonstration

PDP on SBE was conducted for the subjects in the experimental group II on a manikin . Investigators demonstrated the steps of SBE on a manikin. All subjects have done the return demonstration of SBE after the PDP. Each subject took approximately 10-15 minutes for re-demonstrating the competency on SBE. Post test I was conducted on the 7th day for teachers in all groups.

RESULTS

Section 1: Description of selected Personal variables of school teachers

- Frequency and percentage distribution of school teachers according to their selected personal variables

Section 2: Description of knowledge scores of school teachers regarding Self Breast Examination

- Mean, median and standard deviation of knowledge scores of school teachers
- Frequency and percentage distribution of school teachers according to their level of knowledge regarding Self Breast Examination

Section 3: Effectiveness of intervention in improving the knowledge of school teachers regarding Self Breast Examination

- i. Significance of difference between mean post test knowledge scores of school teachers in control group and experimental group I.
- ii. Significance of difference between mean post test knowledge scores of school teachers in control group and experimental group II.

Section 4: Description of competency scores of school teachers regarding Self Breast Examination

- i. Mean, median and standard deviation of competency scores of school teachers
- ii. Frequency and percentage distribution of school teachers according to their level of competency regarding Self Breast Examination

Section 5: Effectiveness of intervention in improving the competency of school teachers regarding Self Breast Examination

- i. Significance of difference between mean post test competency scores of school teachers in control group and experimental group I.
- ii. Significance of difference between mean post test competency scores of school teachers in control group and experimental group II.

Section 1: Description of selected Personal variables of school teachers

- i. Frequency and percentage distribution of school teachers according to their selected personal variables
n=150

Sl.No	Sample Characteristics	Control Group		Experimental Group I		Experimental Group II	
		F	%	F	%	F	%
1	Age in years						
	a.25-35	10	20	18	36	17	34
	b.36-45	25	50	20	40	18	36
	c. 45 &above	15	30	12	24	15	30
2	Religion						
	a.Hindu	45	90	32	64	28	56
	b.Christian	03	06	08	16	14	28
	c.Others	02	04	10	20	08	16
3	Education						
	a.D.Ed	08	16	12	24	10	20
	b.B.Ed	20	40	18	36	22	44
	c.M.Ed	22	44	20	30	18	36
4	Marrital status						
	a.Married	50	100	43	86	35	70
	b.Unmarried	00	00	07	14	15	30
	c.others	00	00	00	00	00	00
5	Family history of Breast Cancer						
	a.Yes	02	04	00	00	01	02
	b.No	48	96	50	100	49	98
6	Previous exposure to educational programme on SBE.						
	a.Yes	00	00	00	00	00	00
	b.No	50	100	50	100	50	100

Data presented in Table 1 shows that majority of school teachers in all three groups were in the age group of 36- 45 years and majority were belonging to Hindu religion. Majority had the educational qualification of B Ed and were married. Majority of school teachers had no family history of breast cancer and none of them had any previous exposure to any previous educational programs on SBE

Section 2: Description of knowledge scores of school teachers regarding Self Breast Examination

- i. Mean, median and standard deviation of knowledge scores of school teachers
n= 150

Group		Mean	Median	Range	SD
Control	Pre test	11.08	11	7-13	±1.68
	Post test	11.8	11	8-14	±1.244

Pre-	Exp I	Pre test	10.96	10.5	4-17	±3.45	test
		Post test	19.56	20	15-27	±2.62	
	Exp II	Pre test	11.1	12	3-17	±3.15	
		Post test	20.98	21	8-13	±1.25	

knowledge scores in control group ranged from 07- 13, with a median of 11, mean of 11.08 and SD of ±1.68, where as in the experimental group I, it ranged from 04-17, with a median of 11, mean of 10.96 and SD of ±3.45. In experimental group II , pre test knowledge scores ranged from 03- 17, with a median of 12, mean of 11.11 and SD of ±3.15. There was an increase in the post test mean knowledge scores of Experimental groups (Exp I- From 10.96 to 19.56) ; Exp II- from 11.1 to 20.98), where as in the control group it remained without much change

ii. Frequency and percentage distribution of school teachers according to their level of knowledge regarding Self Breast Examination

Level of Knowledge	Control Group (n=50)		Experimental Group I (n=50)		Experimental Group II(n=50)		Total N=150	
	f	%	f	%	f	%	f	%
Pre test								
Poor	50	100	35	70	40	80	125	83
Average	00	00	15	30	10	20	25	17
Good	00	00	00	00	00	00	00	00
Post test I								
Poor	45	90	00	00	00	00	45	30
Average	05	10	29	58	05	10	39	26
Good	00	00	21	42	45	90	66	44

Data shows that in the pre test, majority of school teachers in all three groups were having poor level of knowledge , where as in post test I, in both experimental groups, majority (Exp I- 42%, Exp II- 90%) have scored good knowledge

Section 3: Effectiveness of intervention in improving the knowledge of school teachers regarding Self Breast Examination

H₀₁: There will be no statistically significant difference between the mean post test 1 knowledge scores of school teachers in control group and experimental groups.

iii. Significance of difference between mean post test 1 knowledge scores of school teachers in control group and experimental group I.

Group	Mean Score	Mean difference	SD difference	Independent Value	't'
Control N=50	11.8	7.76	±1.37	4.28*	
Exp I N=50	19.56				

t₍₉₈₎= 1.96; p<0.05; *Significant

Data shows that the mean difference between post test1 knowledge scores in control group and experimental group I was 7.76. Computed independent “t” value was statistically significant at 0.05 level of significance and it is inferred that video teaching on SBE was effective in improving the knowledge scores of school teachers

iv. Significance of difference between mean post test 1 knowledge scores of school teachers in control group and experimental group II.

Group	Mean Score	Mean difference	SD difference	Independent Value	't'
Control N=50	11.8	9.18	±0.006	5.34	
Exp II N=50	20.98				

t₍₉₈₎= 1.96; p<0.05; *Significant

Data shows that the mean difference between post test1 knowledge scores in control group and experimental group II was 9.18. Computed independent “t” value was statistically significant at 0.05 level of significance and it is inferred that Planned demonstration program on SBE was effective in improving the knowledge scores of school teachers

Section 4: Description of competency scores of school teachers regarding Self Breast Examination

i. Mean, median and standard deviation of competency scores of school teachers

Group		Mean	Median	Range	SD
Control	Pre test	00	00	00	00
	Post test	0.76	01	0-2	±0.67
Exp I	Pre test	00	00	00	00
	Post test	9.34	10	6-11	±0.93
Exp II	Pre test	00	00	00	00
	Post test	9.22	09	8-10	±0.91

Post -test competency scores of control group ranged from 0-02, with a median of 1, mean of 0.76 and SD of ±0. 67. In experimental group I , it ranged from 06- 11, with a median of 10, mean of 9.34 and SD of ± 0. 93. Post -test competency scores of experimental group II ranged from 08-10, with a median of 09 , mean of 9.22 and SD of ± 0. 91

ii. Frequency and percentage distribution of school teachers according to their level of competency regarding Self Breast Examination

Level of Knowledge	Control Group n=50		Experimental Group I n=50		Experimental Group II n=50		Total N=150	
	f	%	f	%	f	%	f	%
Pre test								
Poor	50	100	50	100	50	100	150	100
Good	00	00	00	00	00	00	00	00
Post test I								
Poor	50	100	18	36	16	32	84	56
Good	00	00	32	64	34	68	66	44

Data shows that in the pre test, school teachers in all three groups were having poor level of competency, where as in post test I, in both experimental groups, majority (Exp I- 64%, Exp II- 68%) have scored good competency in SBE

Section 5: Effectiveness of intervention in improving the competency of school teachers regarding Self Breast Examination

H02: There will be no statistically significant difference between the mean post test 1 competency scores of school teachers in control group and experimental groups.

i. Significance of difference between mean post test1 competency scores of school teachers in control group and experimental group I.

Group	Mean Score	Mean difference	SD difference	Independent 't' Value
Control N=50	0.76	8.58	±0.26	2.85
Exp I N=50	9.34			

t₍₉₈₎= 1.96; p<0.05; *Significant

Data shows that the mean difference between post test1 competency scores in control group and experimental group I was 8.58. Computed independent “t” value was statistically significant at 0.05 level of significance and it is inferred that video teaching on SBE was effective in improving the competency of school teachers in SBE

ii. **Significance of difference between mean post test1 competency scores of school teachers in control group and experimental group II**

Group	Mean Score	Mean difference	SD difference	Independent ‘t’ Value
Control N=50	0.76	8.46	±0.24	2.28
Exp II N=50	9.22			

$t_{(98)} = 1.96$; $p < 0.05$; *Significant

Data shows that the mean difference between post test1 competency scores in control group and experimental group II was 8.46. Computed independent “t” value was statistically significant at 0.05 level of significance and it is inferred that Planned demonstration program on SBE was effective in

CONCLUSION

Results of the study revealed that majority of school teachers were not having adequate knowledge and competency in SBE. Educational interventions were effective in improving the knowledge and competency of school teachers regarding SBE. Study stresses the need for community based educational and motivational strategies for s for women as a primary prevention approach.

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