

## Research Article

# A Study to Assess the Effectiveness of Video Assisted Teaching Programme on Knowledge Regarding Breast Self-Examination among Female Students of Government Degree College Pulwama, Kashmir

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## I N F O

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## A B S T R A C T

**Introduction:** Breast self-examination is a crucial screening method, especially for detecting cancer in women who test negative on mammograms or clinical breast exams. It also helps in identifying cancer in women who haven't been screened. This self-examination involves checking for lumps in the breast at home.

**Results:** The pre-test results showed that 46.67% (28) had an inadequate level of knowledge, 53.33% (32) had a moderate level of knowledge, and none had an adequate level of knowledge about Breast Self-Examination. However, the post-test results revealed that 25% (15) had a moderate level of knowledge, 75% (45) had an adequate level of knowledge, and none had an inadequate level of knowledge regarding breast self-examination.

**Conclusion:** The results demonstrated that the video-assisted teaching program was highly effective, as evidenced by the significant improvement in post-test knowledge scores among the study subjects.

**Keywords:** Effectiveness, Video Assisted Teaching Programme, Breast Self-Examination, Knowledge

## Introduction

Breast cancer is a significant health issue in the United States.<sup>1</sup> Globally, it is the most common cancer and the leading cause of cancer-related deaths among women.<sup>2</sup> Current statistics show that a woman's lifetime risk of developing breast cancer is approximately 12%, or 1 in 8.<sup>1</sup>

Breast cancer occurs when abnormal cells in the breast grow uncontrollably, forming tumours. If these tumours are not treated, they can spread throughout the body and become fatal.<sup>3</sup> While it's true that breast cancer cannot be completely prevented, there are ways to reduce the risk of developing it through specific preventive measures. Among these, the most crucial and beneficial is the early detection of breast cancer. Regular screenings, such as mammograms and self-examinations, play a vital role in detecting breast cancer in its early stages.<sup>4</sup>

Breast tissue undergoes changes during the menstrual cycle, pregnancy, and menopause. It's crucial to differentiate these normal changes from those that may indicate disease. Breast self-examination is an important screening tool, especially for women who might develop breast cancer after a negative mammography or clinical breast examination result. It also helps in detecting cancer in unscreened women.<sup>1</sup>

Breast self-examination (BSE) is a valuable screening method that women can perform at home to check for breast lumps.<sup>5</sup> An effective breast self-examination should be conducted at the same time each month, using proper techniques to cover the entire area of each breast, including the lymph nodes, underarms, and upper chest, from the collarbone to below the breasts, and from the armpits to the breastbone. Each area should be examined three times, applying light, medium, and firm pressure. Breast self-examination can be performed using three methods: vertical strip, wedge section, and concentric circle detection. In all methods, women should use two or three fingers with the thumb extended, employing the sensitive palmar pads on the flat, inner surfaces of the fingers to systematically feel the breast. The palmar pads are preferable because fingertips are less sensitive, and long nails can impede movement. The breast should not be compressed between fingers, as this can create a false lump sensation.<sup>4</sup>

Women who choose to perform BSE should receive proper instruction on the technique. They should be informed that regular, monthly BSE will help them become familiar with their normal breast characteristics. If any changes are detected, they should seek medical attention. The optimal timing for BSE is typically 5 to 7 days after menstruation for premenopausal women and once a month for postmenopausal women.<sup>1</sup>

## Need for the study

Breast cancer is the most common cancer in females worldwide, accounting for about 25% of all cancers in women. It is responsible for approximately 15% of all cancer-related deaths in women.<sup>6</sup>

In 2020, there were 2.3 million women diagnosed with breast cancer and 685,000 deaths globally. By the end of 2020, there were 7.8 million women alive who had been diagnosed with breast cancer in the previous 5 years, making it the most prevalent cancer worldwide.<sup>3</sup> Epidemiological studies predict that the global burden of breast cancer will reach nearly 2 million cases by 2030. The incidence of breast cancer is approximately three times higher in urban areas compared to rural areas.<sup>7</sup>

Breast cancer is currently the most prevalent cancer among Indian women, with an age-adjusted rate as high as 25.8 per 100,000 and a mortality rate of 12.7 per 100,000 women. It accounts for 7% of the global burden and one-fifth of all cancers among women in India. The incidence of breast cancer is rising, making it a significant concern among the female population in the Kashmir region.<sup>6</sup>

In a study conducted in 2022, researchers found that among 426 breast masses, 96% of cancers and 81% of positive ultrasound findings were identified by patients themselves.<sup>4</sup>

Devi, Monika, and Lalmingthang<sup>8</sup> (2021) conducted a study to evaluate the effectiveness of a video-assisted teaching program on breast self-examination (BSE) knowledge among adolescent girls in a selected college in Guwahati, Assam. The study involved 60 adolescent girls and found that the post-test knowledge score (18.67) was significantly higher than the pre-test score (8.33).

Thakur, Vashist, Mishra, and Duggal<sup>9</sup> (2022) conducted a study to assess Breast self-examination knowledge among women aged 25-45 years in the rural area of Kurali (Dhianpura). The sample consisted of 80 women. The results revealed that 86.25% of the women had average knowledge of BSE, 5% had high knowledge, and 8.75% had below-average knowledge.

The investigator noted that breast cancer is the most prevalent cancer among women globally. Despite its prevalence, many women are unaware of the breast self-examination technique, which is essential for detecting lumps or breast cancer. Early detection is crucial as it increases the chances of successful treatment and reduces the likelihood of cancer spreading. This study seeks to empower the female students with the necessary skills for performing breast self-examination for early detection and better health outcomes.

## Objectives

The objectives of the study were:

- To assess the pretest knowledge scores of breast self-examination among female students.
- To assess the post-test knowledge scores regarding breast self-examination among female students.
- To assess the effectiveness of video assisted teaching programme by comparing pretest and post-test knowledge scores of female students.
- To find the association of pretest knowledge with selected demographic variables (age, residence, type of family, previous information regarding breast self-examination and source of previous information).

## Methodology

A quantitative research approach with pre-experimental one group pretest post-test design was adopted to conduct this study. A formal written permission was obtained from the principal of Government Degree College Pulwama. An informed consent was obtained from the study subjects who were fulfilling the inclusion criteria. After getting permission to conduct the study, the data was collected from 60 female students. Self-structured questionnaire was administered for the collection of data after reliability was established for the tool by using the Cronbach's Alpha ( $r = 0.80$ ).

The knowledge scores were interpreted by developing a criterion which indicated that score of  $<50\%$  was considered inadequate knowledge,  $50-70\%$  was considered moderately adequate knowledge while as score of  $>70\%$  was considered adequate knowledge.

## Results

Majority of study subjects  $51.67\%$  (31) belonged to the age group 17-20 years,  $46.67\%$  (28) belonged to the age group 21-23 years and  $1.66\%$  (1) belonged to the age group 24-26 years. Most of the study subjects  $78.33\%$  (47) were residing in rural areas, where as  $21.67\%$  (13) of the subjects were residing in urban areas.  $28.33\%$  (17) of the subjects had joint family type, where as  $71.67\%$  (43) had nuclear family type.  $45\%$  (27) of the subjects had previous information, where as  $55\%$  (33) of subjects did not have previous information regarding BSE,  $35\%$  (21) of the subjects had previous information from the internet,  $10\%$  (6) had from books, where as  $55\%$  (33) had from mass media. (Table 1)

Majority of study subjects  $53.33\%$  (32) had moderately adequate level of knowledge,  $46.67\%$  (28) had inadequate level of knowledge, whereas none of the study subjects had adequate level of knowledge regarding breast self-examination in the pretest assessment. (Table 2, Figure 1)

The post-test assessment indicated that majority of study subjects  $75\%$  (45) had adequate knowledge level,  $25\%$  (15) had moderately adequate knowledge level, whereas none of the subjects had inadequate level of knowledge. (Table 3, Figure 2)

The results revealed that there was significant association between the pretest knowledge scores with their selected demographic variables like age, residence, type of family, while no association was found with other demographic variables like previous information regarding BSE ( $p=0.4$ ) and source of previous information regarding BSE ( $p=0.8$ ) at  $p \leq 0.05$  level of significance. (Table 4)

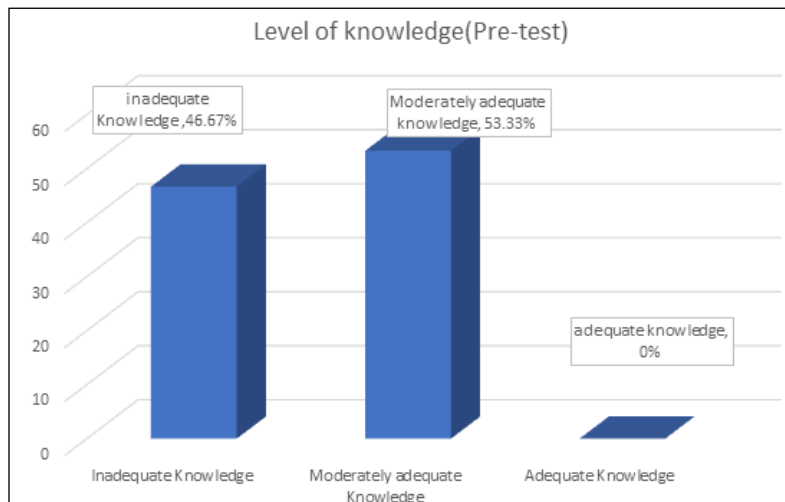
**Table 1. Frequency and Percentage Distribution of Study Subjects According to their Demographic Data**

N=60

Characteristics	Demographic data		
	Content	Frequency	Percentage (%)
Age (in years)	17-20	31	51.67
	21-23	28	46.67
	24-26	1	1.66
Residence	Rural	47	78.33
	Urban	13	21.67
Type of family	Joint	17	28.33
	Nuclear	43	71.67
Previous information regarding BSE	Yes	27	45
	No	33	55
Source of previous information	Internet	21	35
	Books	6	10
	Mass media	33	55

**Table 2. Frequency and Percentage Distribution of Pre-Test Level of Knowledge of Study Subjects Regarding Breast Self-Examination**

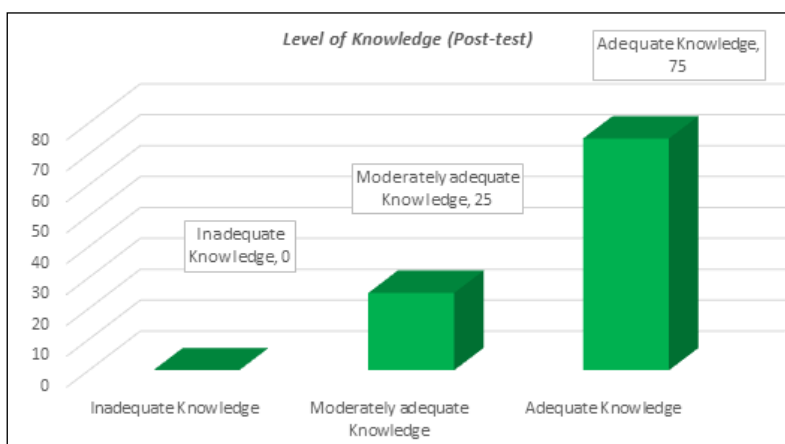
Pretest Knowledge level	Frequency	Percentage (%)
Inadequate (0-18)	28	46.67
Moderately adequate (19-29)	32	53.33
Adequate (30-38)	0	0



**Figure 1. Bar Diagram Showing Pre-Test Knowledge Level Of Study Subjects**

**Table 3. Frequency and Percentage Distribution of Post-Test Level of Knowledge of Study Subjects Regarding Breast Self-Examination**

Post-test Knowledge level	Frequency	Percentage (%)
Inadequate (0-18)	0	0
Moderately adequate (19-29)	15	25
Adequate (30-38)	45	75



**Figure 2. 3D Bar Diagram Showing Post-Test Knowledge Level of Study Subjects**

**Table 4. Association of Pretest Knowledge Scores of Study Subjects with their Selected Demographic Variables**

Variables	Opts	Inadequate Knowledge	Moderate Knowledge	Adequate Knowledge	$\chi^2$ Test	$\chi^2$ table Value	Df	p Value	Result
Age (in years)	17-20	10	10	11	11.83	9.48	4	0.01	S*
	21-23	2	6	20					
	24-26	0	0	1					
Residence	Rural	17	12	18	8.30	5.99	2	0.02	S*
	Urban	3	2	8					
Type of family	Joint	2	3	12	14.32	5.99	2	0.000	S*
	Nuclear	15	5	23					
Previous information regarding BSE	Yes	7	10	10	3.11	5.99	2	0.4	NS
	No	11	10	12					
Source of previous information regarding BSE	Internet	7	7	7	1.82	9.48	4	0.8	NS
	Books	2	3	1					
	Mass media	11	11	11					

S= Significant, NS=non-significant

## Discussion

Majority of study subjects 51.67% (31) belonged to the age group 17-20 years, 46.67% (28) belonged to the age group 21-23 years and 1.66% (1) belonged to the age group 24-26 years. Regarding residence, majority of the subjects 78.33% (47) resided in rural areas, where as 21.67% (13) of the subjects were residing in urban areas. Regarding type of family, majority of study subjects 71.67% (43) had nuclear family type, where as 28.33% (17) of the study subjects had joint family type. Majority 55% (33) of study subjects did not have previous information regarding BSE, where as 45% (27) of the subjects had previous information regarding BSE. The source of previous information was internet in 35% (21), 10% (6) had from books, where as 55% (33) had from mass media.

The mean post-test knowledge scores (32.17) were significantly higher than the mean pretest knowledge (22.06) score of study subjects.

The findings of the present study were supported by the findings of a study conducted by Somowal, Lalhmingthang and Chanu<sup>10</sup> (2024).

Findings of the present study revealed that there was statistically significant association of the pre-test knowledge scores of the study subjects with the selected demographic variables like age ( $p=0.01$ ), residence ( $p=0.02$ ) and type of family ( $p=0.000$ ), while no significant association was found with demographic variables like previous information

regarding BSE ( $p=0.4$ ) and source of previous information ( $p=0.8$ ).

## Conclusion

The female students of Government Degree College were having inadequate knowledge regarding breast self-examination and there was a need for educating them. The mean post-test knowledge scores improved after implementation of video assisted teaching program indicating that the video assisted teaching program was effective in increasing the knowledge level of the students.

## Recommendations

- A descriptive study can be conducted to assess the knowledge and attitude of nursing students regarding breast self-examination.
- A comparative study can be conducted to compare the knowledge regarding breast self-examination among nursing officers with varying qualification.

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**Conflict of Interest:** None

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