

# EFFECTIVENESS OF VIDEO ASSISTED TEACHING ON KNOWLEDGE REGARDING BREAST SELF-EXAMINATION AMONG UNDERGRADUATE STUDENTS OF SELECTED COLLEGES AT BELAGAVI, KARNATAKA

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## Abstract

The screening technique Breast Self-Examination aims to find breast cancer early on. This method gathers information on the state of the breasts by carefully examining and palpating them. Breast cancer is the primary cause of death and morbidity in both developing and industrialized nations. In this study, 200 undergraduate students from a particular college in Belgaum were recruited to evaluate the efficacy of video-assisted instruction on breast self-examination adopting a quasi-experimental method. Convenient sampling techniques were used to choose the samples. Self-structured Google Form questionnaires pertaining to knowledge and demographic characteristics were used to gather data. The knowledge of breast self-examination was evaluated using a pre-test, and the same day, video assisted instruction was provided. A post-test was administered seven days later. The study's findings showed how beneficial video-assisted instruction was in promoting knowledge about breast cancer prevention and early detection.

**Keyword:** Knowledge, Breast Cancer, Breast Self-Examination, Video Assisted Teaching

## INTRODUCTION

Breast cancer is the most common malignancy in women globally, resulting in an uncontrollably large mass of malformed cells. Women are affected for the whole of their lives, and as they become older, their risk increases. Breast cancer is the second most frequent cancer that results in death in women, accounting for 30% of all cancer cases. The fifth and sixth decades of life are when breast cancer is most common, and early detection methods including mammography, clinical breast exams, and breast self-examination are essential for catching the disease early.

Medical research shows that one-third of all malignancies can be avoided, and a further one-third may be cured if detected in time. Breast self-examination is a routine method for detecting breast cancer, and early diagnosis leads to treatment prior to

metastases and better management outcomes.<sup>3</sup> Breasts are ever-changing, and women should be aware of their natural texture and underlining tissue to spot abnormal lumps or alterations.

The American cancer society views breast self-examinations as voluntary, but women should schedule routine mammography and clinical breast exams to detect breast cancer. High-risk breast cancer patients should have yearly mammography and a magnetic resonance imaging test.

Breast cancer ranks as the number one cancer among Indian females, with an age adjusted rate of 25.8 per 100,000 women and a mortality rate of 12.7 per 100,000 women. Nurses and midwives should be knowledgeable about breast examination to effectively detect breast cancer in its early stages and educate women about breast self-examination, breast cancer risk factors, and early detection.

Breast cancer is a major global health concern and the second most prevalent malignancy in women in India. With an annual incidence rate of 22.9 and a death rate of 11.19, breast cancer is a second most prevalent malignancy in women. Early detection increases the 5-year survival rate of 85%, while late detection reduces it to 56%. Breast self-examination, clinical breast examination (CBE), and mammography are suggested preventive methods to lower breast cancer mortality and morbidity. The number of cases of breast cancer worldwide is predicted to reach about 2 million by 2030. In India, there were 118,000 incident cases in 2016, with 98.1% of women being female. Breast self-examination is a cheap tool that can be used by women alone, while CBE and mammography require hospital visits, specialized equipment, and experience. Breast self-examination is still a crucial screening approach, particularly in low-resource settings. Awareness campaigns must be developed to raise the practice rate among females, especially female students. It is hypothesized that UG girl's poor breast self-examination rates are caused by their ignorance of breast cancer screening techniques. Rising awareness about breast self-examination among UG females through campaigns and fostering a positive attitude towards it is crucial.

### OBJECTIVES OF THE STUDY

1. To assess the effectiveness of video assisted teaching on knowledge regarding Breast self-examination among undergraduate students in selected college at Belagavi, Karnataka.
2. To find an association between pretest knowledge scores regarding Breast Self –Examination with selected demographic variables.

### MATERIALS AND METHODS

A quasi experimental research design was used to assess the effectiveness of video assisted teaching on knowledge regarding Breast self-examination among undergraduate students in selected college at Belagavi, Karnataka. Ethical permission was obtained from institutional ethics committee and permission was obtained from the principal and management of Engineering college Belagavi. The study was conducted between March 2023 to May 2023. 200 Undergraduate students were enrolled in the study by using convenient sampling method. The study excluded those undergraduate students who were not willing to participate and who had undergone breast surgeries. Socio-Demographic variables and knowledge questionnaires were gathered by using self-structured questionnaire through Google form

### RESULTS

**Table 1: Distribution of sample characteristics according to demographic variables of participants.**

Socio-demographic variables			
		n	%
Age	17-19	90	45.00
	20-22	99	49.50
	23+	11	5.50
Area Residency	Rural	104	52.00
	Urban	96	48.00
diet	Veg	99	49.50
	Mixed	101	50.50
Type of Family	Nuclear	65	32.50
	Joint	133	66.50
	Extended	2	1.00

Source of Information	Social media	97	48.50
	Health Worker	62	31.00
	Family	25	12.50
	Friends	16	8.00
Family history	Yes	19	9.50
	No	181	90.50

The Data on demographic variables shows that 49.50% belongs to age group of 20 to 22 years of age group, 45% belongs to age group of 17 to 19, 5.50% belongs to age group of 23+. About area of residency, 52% of them reside in rural area and 48% of them reside in Urban area. Regarding dietary pattern, most of them i.e. 50.50% consumes mixed diet and 49% of them were vegetarian. Out of total population, 66.50% of them belongs to joint family, 32.50% belongs to Nuclear family and just 1% belongs to Extended family. About source of information, 48.50% got information through social media, 31% got information through Health Workers, few of them i.e. 12% got information through Family and very least of them i.e. 8% got information through Friends. Regarding family history, majority of them i.e. 90.50% does not have the family history of breast cancer and only 9.50% have family history of breast cancer. Pretest knowledge revealed that majority i.e. 73% of students had average knowledge, 17.50% had good knowledge and 9.50% had poor knowledge. Post-test knowledge revealed that majority i.e. 41% of students had average knowledge, 53.50% had good knowledge and 5.50% had poor knowledge. (Table 1)

**Table 2: Assessment of pretest and post test level of knowledge regarding breast self-examination.**

Level of knowledge	Pre test		Post test	
	f	%	f	%
Good	35	17.50%	107	53.50%
Average	146	73%	82	41%
Poor	19	9.50%	11	5.50%

The data shows that majority of female students in pre-test 146 of them (73%) had average knowledge, remaining 35 of them (17.50%) had good knowledge and 19 of them (9.50%) had poor knowledge regarding breast self-examination but in post-test majority 107 of them (53.50%) had good knowledge remaining 82 of them (41%) had average knowledge and 11 of them (5.50%) had poor knowledge regarding breast self-examination. Thus video assisted teaching was effective in improving knowledge regarding Breast self-examination among undergraduate students of SGBalekundri Institute of engineering college Belagavi. (Table 2)

**Table 3: Comparison of pre-test and post-test knowledge score regarding breast self-examination.**

n= 200			
Test	Mean	SD	Paired 't' value
Pretest	6.43	2.35	65.255
Posttest	18.31	0.904	

The data presented in table shows that mean posttest scores of knowledge regarding breast self-examination 18.31 of the group were higher than mean pre test scores of knowledge regarding breast self-examination 6.43. (Table 3) The obtained standard deviation of knowledge regarding breast self-examination during post-test was 0.904 and pre-test standard deviation was 2.35. The obtained value for the pre-test and post test scores of

knowledge regarding breast self-examination is 65.255 when compared to table value was found to be high and significant at 0.05 level. So the video assisted teaching program had a

significant effect in increasing the knowledge regarding breast self-examination among the female students.

**Table 4: Association between post test scores of knowledge regarding breast self-examination with selected demographic variables.**

		Pre-Test						Chi-sq(df)	p-value
		Good		Average		Poor			
		n	%	n	%	n	%		
Age	17-19	13	37.10	68	46.60	9	47.40	5.119(4)	0.275
	20-22	22	62.90	69	47.30	8	42.10		
	23+	0	0.00	9	6.20	2	10.50		
Area Residency	Rural	20	57.10	73	50.00	11	57.90	0.869(2)	0.647
	Urban	15	42.90	73	50.00	8	42.10		
diet	Veg	14	40.00	75	51.40	10	52.60	1.542(2)	0.462
	Mixed	21	60.00	71	48.60	9	47.40		
Type of Family	Nuclear	9	25.70	49	33.60	7	36.80	7.117(4)	0.13
	Joint	25	71.40	97	66.40	11	57.90		
	Extended	1	2.90	0	0.00	1	5.30		
Source of Information	Social Media	15	42.90	75	51.40	7	36.80	12.622(6)	<0.05
	Health Worker	13	37.10	44	30.10	5	26.30		
	Family	3	8.60	20	13.70	2	10.50		
	Friends	4	11.40	7	4.80	5	26.30		
Family History	Yes	1	2.90	13	8.90	5	26.30	8.106(2)	<0.05
	No	34	97.10	133	91.10	14	73.70		

The finding of table 4 reveals that the variables i.e. age, residential area, dietary pattern and type of family in relation with knowledge scores of selected undergraduate students are independent of each other (p-values>0.05). The variables i.e. source of information and family history shows an association with knowledge scores at 0.05 level of significance (p-values<0.05). (Table 4)

## DISCUSSION

The study was conducted among 200 undergraduate students of selected engineering college of Belagavi Karnataka. The samples were collected by convenient sampling technique. Pretest was conducted and video assisted teaching was administered on the same day. Post test was conducted 7 days after the administration of video assisted teaching program. Significant mean difference was found in the post test scores, which shows the effectiveness of video assisted teaching program on knowledge regarding breast self-examination. Pooja Prakash, Shanti Khadka, Muna Silwal, Ayush Chandra conducted a cross sectional study. The total sample was 120 female adolescents collected using probability proportionate stratified sampling technique. The results showed that, maximum of the students had poor knowledge (94.2%) regarding breast self-examination. Their findings were contradicting with present study findings.

Another quasi experimental research study conducted by L Ambika (2014), all their findings were similar with our findings. They stated that mean post-test scores of knowledge 24.18 of the group were higher than mean pretest scores of knowledge 8.35.

## CONCLUSION

The study highlights the importance of video-assisted instruction programs in breast self-examination among undergraduate students. Nursing administration should incorporate these programs into monthly practice and encourage staff participation in in-service breast self-education programs. Nursing practice should provide sound knowledge about breast

self-examination for better clinical practice. Research enhances comprehensive care and can be used to instruct students and expand evidence-based practice. Nurse educator can use these findings to teach students about breast self-examination, promoting early detection of breast cancer signs and contributing to health promotion.

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## References

- Malvia, Shreshtha et al. "Epidemiology of breast cancer in Indian women." *Asia-Pacific journal of clinical oncology* vol. 13,4(2017):289-295. doi:10.1111/ajco.12661
- Althuis MD, Dozier JM, Anderson WF, Devesa SS, Brinton LA. Global trends in breast cancer incidence and mortality 1973-1997. *Int J Epidemiol.* 2005;34:405-12. [PubMed] [Google Scholar]
- GLOBOCAN2008(IARC) Section of Cancer Information. [Last accessed on 2011 Oct 06]. Available from: <http://www.globocan.iarc.fr/factsheets/populations/factsheet.asp>.
- Hallal JC. The relationship of health beliefs, health locus of control, and self-concept to the practice of breast self-examination in adult women. *Nurs Res.* 1982; 31: 137-42. [PubMed] [Google Scholar]
- Humphrey LL, Helfand M, Chan BK, Woolf SH. Breast cancer screening: A summary of the evidence for the U.S. Preventive Services Task Force. *Ann Intern Med.* 2002; 137: 347-60. [PubMed] [Google Scholar]
- DeSantis C, Siegel R, Bandi P, Jemal A. Breast cancer statistics, 2011. *CA Cancer J Clin.* 2011;61:409-418. [PubMed] [Google Scholar]
- World Health Organization. Integrating sexual and reproductive health-care services. Policy brief (World Health

- Organization. Dept. of Reproductive Health and Research);2. 2006. [GoogleScholar]
8. Masoudiyekta L, Rezaei-Bayatiyani H, Dashtbozorgi B, Gheibizadeh M, Malehi AS, Moradi M. Effect of education based on health belief model on the behavior of breast cancer screening in women. *Asia Pac J OncolNurs*.2018;5(1): 114. [PMC free article].
  9. Prakash P, Khadka S, Silwal M, Chandra A. Assessment of knowledge on breast self-examination among female adolescent: a cross-sectional study. *Clin J Obstet Gynecol*.2022; 5:036-041.
  10. NandacollegeofnursingErode.Knowledgeandpracticelatedt obreastself-examination among 3 year female students studying at Nanda arts and science college.2014june; [tnmgrmu.ac.in/1657/1/3003261ambikal.pdf](http://tnmgrmu.ac.in/1657/1/3003261ambikal.pdf).