



ISSN Print: 2394-7500  
ISSN Online: 2394-5869  
Impact Factor: 5.2  
IJAR 2019; 5(3): 169-171  
www.allresearchjournal.com  
Received: 10-01-2019  
Accepted: 11-02-2019

**Sudha R**  
PhD Nursing Scholar, Sri  
Narayani College of Nursing,  
Vellore, Tamil Nadu, India

**Dr. P Pandiammal**  
Research Guide, Principal,  
Suran College of Nursing,  
Srivilliputtur, Virudhunagar,  
Tamil Nadu, India

## **Assess the effectiveness of multimedia education on the levels of knowledge regarding breast cancer and screening among women at selected village, Vellore**

**Sudha R and Dr. P Pandiammal**

### **Abstract**

Breast cancer is the most common cancer among women in India and accounts for 27% of all cancers in women. Collectively, the U.S, India and China account for almost one – third of the global breast cancer. The aim of the study was to assess the effectiveness of multimedia education on levels of knowledge regarding breast cancer and screening among women at selected village, Vellore. A Quantitative approach with one group pre and posttest pre experimental research design was adopted. By using Systematic sampling technique, 60 women who meet the inclusion criteria were selected from Ussoor village. The results revealed that regarding the effectiveness of multimedia education, the pretest knowledge mean score was  $6.72 \pm 2.74$  and the posttest knowledge mean score was  $19.47 \pm 2.43$ . The calculated paired “t” test value, 40.81 was higher than the table value 2 which was significant at  $p < 0.05$  level. Regarding the association between posttest levels of knowledge and selected demographic variables such as education, religion, and dietary habits are statistically significant at  $p < 0.05$  level. Clinical breast examination was done to all the women in Ussoor Primary health centre and no one found with the symptoms of breast cancer. The study concluded that, there was significant increase in the level of knowledge of women after the multimedia education. This shows that the multimedia education was effective.

**Keywords:** Breast Cancer, Multimedia Education, Knowledge, Screening

### **Introduction**

Breast cancer is the most common cancer among women in India and accounts for 27% of all cancers in women. Collectively, the U.S, India and China account for almost one – third of the global breast cancer. In India, we are now witnessing more and number of patients being diagnosed with breast cancer to be in the younger age groups (in their thirties and forties). In 2018, 1,62,468 new cases and 87,090 deaths were reported for breast cancer in India. Over all one in 28 women are likely to develop breast cancer during their lifetime. Breast cancer incidence rates within India display a 3- 4-fold variation across the country, with the highest rates observed in Kerala, Tamil Nadu and New Delhi. Breast cancer mortality rates in India are 1.6 to 1.7 times higher than maternal mortality rates. In India 2000 new women are diagnosed with cancer every day but 1200 are detected at the later stages. Late detection reduces the survival rate by 3 to 17 times. Since the numbers of cases are rising, younger women are getting affected, most are presenting only after symptoms develop and all we can do is to detect the cancer early. SCREENING is the way to go.

### **Statement of the problem**

Assess the effectiveness of multimedia education on the levels of knowledge regarding breast cancer and screening among women at selected village, Vellore.

### **Objectives**

- To assess the pre-test levels of knowledge regarding breast cancer among women.
- To assess the effectiveness of multimedia education on the levels of knowledge regarding breast cancer among women.
- To associate the post –test levels of knowledge regarding breast cancer among women with selected demographic variables.

### **Correspondence**

**Sudha R**  
PhD Nursing Scholar, Sri  
Narayani College of Nursing,  
Vellore, Tamil Nadu, India

- To perform screening for breast cancer by clinical breast examination

**Hypotheses**

- H1-** There is a significant difference between pre and posttest levels of knowledge regarding breast cancer among women.
- H2-** There is a significant association between posttest levels of knowledge regarding breast cancer among women and selected demographic variables.

**Methodology**

The Research approach used for the study is Quantitative approach with one group pre and posttest pre experimental design. The study was conducted in Ussoor village, Anaicut block, Vellore. By using systematic sampling technique 60 women between the age group of 30-50 years were selected for the study based on the inclusion and exclusion criteria. The study was conducted by using structured interview schedule, it consists of three sections.

- **Section A:** It deals with the demographic variables like age, religion, education, occupation, family monthly income, dietary habits, family history of breast cancer, relationship with the family member, previous knowledge of breast cancer, sources of information, age at menarche, marital status, age at marriage, parity, duration of breast feeding for the last child, history of oral contraceptive intake, and age of attainment of menopause.
- **Section B:** It consists of 25 knowledge multiple choice questions related to causes, risk factors, signs and symptoms, screening test, treatment and prevention of breast cancer.
- **Section C:** It consists of screening tool on clinical breast examination

**Score Interpretation**

- The knowledge of the breast cancer was measured by structured interview questionnaire. Each correct response was given a score of ‘one’ and a wrong answer score of ‘zero’. The maximum score was 25, to interpret levels of knowledge the scores were distributed as follows:

**Upto50%** - Inadequate knowledge.  
**51-75%** - Moderately adequate knowledge.  
**76% and above** - Adequate knowledge.

- Screening to detect breast cancer was done by using clinical breast examination checklist. Each item was assessed and remarked as negative/normal and positive/abnormal.

**Data Collection Procedure**

Pre test was conducted by using structured interview schedule and after seven days, post test was conducted on the samples using the same questionnaire. The collected data were coded, tabulated and analyzed by using descriptive and inferential statistics.

**Results**

**Table 1:** Frequency and percentage distribution of pre and posttest levels of knowledge regarding cancer breast (n=60)

Levels of knowledge	Pre test		Post test	
	Frequency	%	Frequency	%
Inadequate knowledge (upto50%)	60	100	-	-
Moderately adequate Knowledge (51%-75%)	-	-	13	21.7
Adequate knowledge (76% and above)	-	-	47	78.3
Total	60	100	60	100

In the pretest regarding the knowledge out of 60 samples, 60 (100%) women had inadequate knowledge; none of them had moderately adequate or adequate knowledge. In the posttest 47 (78.3%) of the women had adequate knowledge, 13(21.7%) had moderately adequate knowledge and no one had inadequate knowledge.

- Regarding the effectiveness of multimedia education

**Table 2:** Mean, standard deviation and paired ‘t’ value of pre and posttest levels of knowledge regarding breast cancer among women

Knowledge	Mean	SD	MD	‘t’ value
Pretest	6.72	2.74	12.65	40.81*
Posttest	19.47	2.43		

\*statistically significant (p < 0.05)

Table 2 represents that the pretest knowledge mean score was 6.72 ± 2.74 and the posttest mean score was 19.47 ± 2.43. The mean difference of pre and posttest knowledge was 12.65. The calculated paired ‘t’ test value 40.81 was higher than the table value 2 which is significant at p<0.05 level. It is interpreted that there was significant increase in the level of knowledge of women regarding breast cancer after the multimedia education. Hence hypothesis 1 is accepted.

- Regarding the association between posttest levels of knowledge and selected demographic variables, education, religion, dietary habits are statistically significant at p<0.05 level, whereas age in years, occupation, family monthly income, family history of breast cancer, sources of information on previous knowledge of breast cancer, age at menarche, marital status, age at marriage, parity, duration of breast feeding for the last child, history of oral contraceptive intake and age of menopause are not statistically significant. Hence it is interpreted that the difference in mean score values are true and the hypothesis 2 was partially accepted.
- The investigator demonstrated the procedure breast self examination with the help of breast model to the women. Screening was done by clinical breast examination in Ussoor urban primary health center by the investigator. The screening revealed no abnormalities during clinical breast examination in the women. So further referral like mammography, fine needle aspiration cytology of breast tissue were not performed.

## Conclusion

The present study assessed the effectiveness of multimedia education on the levels of knowledge regarding breast cancer and screening among women at selected village, Vellore. Before the multimedia education programme, the level of knowledge was inadequate. After the multimedia education it was found that the levels of knowledge increased. This shows that the multimedia education was effective. So educating the women regarding breast cancer and skill development on breast self examination will help for prevention and early detection of breast cancer, especially in the resource poor countries like India.

## References

1. Brunner, Suddarth's. Textbook of medical and surgical Nursing. Jaypee brothers medical publishers (p) ltd., volume-2, 13<sup>th</sup> edition.
2. Lewis's, medical and surgical nursing assessment and management of clinical problems, Elsevier publications, New Delhi.
3. Davidson's. Principles and Practice of medicine. Churchill livingstone, Elsevier publication, 19<sup>th</sup> edition.
4. David M Luesley, Philip N Baskar. Obstetrics and Gynaecology. UK, 2<sup>nd</sup> edition.
5. Dr. Alka Turuk, Rakesh Sing. A study to assess the knowledge regarding breast cancer and practices of breast self-examination among women in urban area. International journal of community medicine and public health. 2017; 4(11):4341-4347. Available at <http://dx.doi.org/10.18203/2394-6040.ijcmph.20174856>.
6. Ranvijay singh, *et al*. Breast cancer awareness among women in an urban setup in Western India. Indian Journal of medical and paediatric oncology. 2018; 39(2):215-218. Available at <http://www.ijmpo.org/article.asp?issn=0971-5851;year=2018;volume=39;issue=2;spage=215>.
7. Dr. Vijay Kumar Chattu, *et al*. Community-based study on the knowledge, awareness, and practices of females towards breast cancer in Buraimi, Oman. South Asian Journal of Cancer. 2018; 7(4):215-218. available at <http://journal.sajc.org/article.asp?issn=2278-330X;year=2018;volume=7;issue=4;spage=215;epage=218;aulast=Chattu>
8. Yadav SP, Jiwane NN, Dhanorkar A. Impact of educational intervention on awareness of breast cancer among female students of Government College of Nursing, Nagpur. International Journal of Community Medicine and Public Health. 2019; 6(1):197-202. Available at <https://www.ijcmph.com/index.php/ijcmph/article/3735>