

Assess the Effectiveness of Simulation Based Teaching Program on Knowledge and Practice of Undergraduate Students Regarding Breast Self-Examination in Selected College of Tangi, Odisha

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ABSTRACT

Breast cancer is a major public health concern and remains the most commonly diagnosed cancer in women globally. Early detection through screening, such as breast self-examination (BSE), can significantly improve survival rates. The study was conducted among undergraduate students to evaluate their awareness and practice of breast self-examination. This study aims to assess the knowledge and practice of breast self-examination among undergraduate students, deliver a simulation-based teaching program, to re-assess the knowledge and practice of undergraduate students following the simulation program and investigate the correlation between knowledge and practice. A total of 50 undergraduate students participated in the study. Pretest mean knowledge score is (15.9 ± 2.92) and Post-test mean knowledge score is 27.1 ± 2.29 . Pretest mean practice score is (3.65 ± 1.51) and Post-test mean practice score is (8.18 ± 1.11) . There is a positive correlation between knowledge and practice scores. There is significant association of knowledge and practice score with the demographic variables age and source of information.

Keywords: Assess, Effectiveness, Simulation teaching program, knowledge, practice, Breast self-examination.

INTRODUCTION:

Promotion of healthy life style and prevention of ill health is a fundamental principle behind public health and improving the public's health.

Breast cancer is a global health issue and a leading cause of death among women internationally. In India, it accounts for the second most common cancer in women. Around 80,000 cases are estimated to occur annually. Current statistics indicate that once a life time, a woman's risk of developing breast cancer is about 12%.

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. The 5-year survival rate reached to 85% with early detection whereas later detection decreased the survival rate to 56%. The low survival rates in less developed countries can be attributed to the lack of early detection as well as inadequate diagnosis and treatment

facilities.

About 5-10 % of breast cancer cases are thought to be hereditary, resulting directly from gene defects inherited from a biological parent. Recommended preventive techniques to reduce breast cancer mortality and morbidity include breast self-examination (BSE), clinical breast examination (CBE), and mammography. CBE and mammography require hospital visit and specialized equipment and expertise whereas BSE is an inexpensive tool that can be carried out by women themselves.

A breast self-exam for breast awareness is an inspection of your breasts that you do on your own. To help increase breast awareness, use eyes and hands to determine if there are any changes to the look and feel breasts. Early detection through screening, such as breast self-examination (BSE), can significantly improve survival rates in breast cancer.

BSE assessment findings are retraction sign (skin dimpling, creasing, changes in contour), increased venous prominences, nipple inversion, Inflammation of breast, malignancy of mammary duct showing the early signs of erythema of nipple and areola and Late signs of thickening, scaling and erosion of nipple and areola.

NEED FOR THE STUDY:

A descriptive study was conducted by in community area showing the mean age of the women was 24.54 ± 7.19 . Over 50% of the respondents did not know how to perform BSE. There was a significant association between knowledge on breast cancer and practice of BSE ($\chi^2 = 36.218$ p = 0.003). The higher the age of a participant, the lower practice of breast self-examination and this was significant ($\chi^2 = 11.324$, p = 0.003).

A study was conducted with descriptive research design which involves the assessment of the knowledge on breast self-examination among women in selected tertiary hospital, Kelambakkam, Kancheepuram District, Tamil Nadu, India. The study finding was revealed that 17.58% had inadequate knowledge, 56.64% had moderate knowledge and 25.78% had adequate knowledge. Most of the women had a moderate level of knowledge on breast self examination practices.

A cross sectional study was conducted by Durga madhab Satapathy and Sangeeta Das on Breast self examination practice among 82 postgraduate female students of M.K.C.G. MCH, Odisha .the study revealed the result that 50% of the participants did not know about the age of starting BSE. The median knowledge and practice score was 42 and 36 respectively.

So it is concluded that early detection through screening, such as breast self-examination (BSE), can significantly improve the prevention of breast cancer and survival rates by early identification. The study was conducted among undergraduate students to enhance their awareness and practice of breast self-examination to prevent breast cancer and to reduce the incidence of late-stage breast cancer.

PROBLEM STATEMENT:

A study to assess the effectiveness of Simulation based teaching programme on knowledge and practice of undergraduate students regarding Breast self-Examination in selected college of Tangi, Odisha.

OBJECTIVE OF THE STUDY:

- To assess the knowledge of undergraduate students regarding breast self examination
- To assess the Practice of undergraduate students regarding breast self examination.
- To re-assess the knowledge and practice of undergraduate students regarding breast self examination

after implementation of simulation based teaching programme.

- To find out the correlation between knowledge and practice score of undergraduate students regarding breast self-examination.

RESEARCH METHODOLOGY:

Research design: For the present study one group pre-test, post-test, pre-experimental design (O₁ X O₂) with Quantitative approach was adopted.

Variable:

Independent variable: Simulation teaching program

Dependent variable: - knowledge and practice of students regarding Breast self-Examination

Setting: Study was conducted at a selected college, Tangi, Odisha

Sample and sampling technique: A purposive sampling technique was utilized to collect data from 50 students.

Tool: Semi-structured knowledge and practice questionnaire.

Simulation based teaching programme was conducted as intervention

Validity and reliability: Validity of the tool was established in consultation with guide and experts in the field of medical surgicalnursing and reliability (r =0.82)

FINDINGS:

Highest Percentage of students come from age group 20-25 years (58%). 42(70%) of students are having Hindu religion. 83% of students are from Odia medium. Most no 36 (60%) students got the information from mass media. Out of 60 students only 3 (5%) students are having family history of cancer

Table-1
COMPARISION OF PRE AND POST KNOWLEDGE SCORE
(n=50)

SL. NO	KNOWLEDGE	MEAN	SD	T-value	Level of significance
1.	Pre test	15.9	2.92	22.03	0.05
2.	Post test	27.1	2.29		

T=2.02 (Table value) DF=49 (P=<0.05)

Table-1 reveals that pretest mean knowledge score is (15.9±2.92) and Post-test mean knowledge score is 27.1±2.29 . The calculated T-value is more than tabulated value which justifies that there is significant difference between mean post test and pre test knowledge score.

Table-2 COMPARISON OF PRE AND POST PRACTICE SCORE (n=50)

SL. NO	PRACTICE SCORE	MEAN	SD	T-value	Level of significance
1.	Pre test	3.65	1.51	6.95	0.05
2.	Post test	8.18	1.11		

T=2.02 (Table value) DF=49 (P=<0.05)

Table-2 reveals that pretest mean practice score is (3.65±1.51) and Post-test mean practice score is (8.18±1.11). The calculated T-value is more than tabulated value which justifies that there is significant difference between mean post test and pre test practice score.

Table-3 CORRELATION BETWEEN PRE-TEST AND POST TEST KNOWLEDGE SCORE AND PRACTICE SCORE REGARDING BSE (n=50)

SL. NO	REA	PRE TEST			POST TEST		
		MEAN	SD	value	MEAN	SD	value
	Knowledge	93	01	0.97	103	03	0.90
	Practice	61	51		118	11	

Table-3 reveals that there is a positive correlation between knowledge and practice scores, highlighting that individuals with higher knowledge levels were more likely to engage in regular breast self-examination

Table-4 CHI SQUARE shows the association between Knowledge and practice score of students with their selected demographic variables (n=50)

SL.NO	DEMO. VARIABLES	X ² VALUE KNOWLEDGE	X ² VALUE PRACTICE	TABLE VALUE	SIGNIFICANCE
1	Age	3.92	3.86	X ² = 3.84, DF=1 (P=<0.05)	Significant
2	Religion	2.58	2.11		Not-significant
3	Study medium	3.06	2.89		Not-significant
4	Source of information	4.01	3.89		Significant
5	Family history of cancer	3.15	2.58		Not-significant

Table-4 reveals that there is significant association of knowledge and practice score with the demographic variables age and source of information.

CONCLUSION AND RECOMMENDATION:

The simulation program was designed to provide comprehensive information on breast self-examination and practical training using simulation techniques. The results revealed a significant improvement in both knowledge and practice scores after the simulation-based teaching program. This finding suggests that the program effectively enhanced participants' understanding and ability to perform breast self-examination correctly. Additionally, the study found a positive correlation between knowledge and practice scores, highlighting that individuals with higher knowledge levels were more likely to engage in regular breast self-examination. In conclusion, this study provides evidence of the effectiveness of simulation-based teaching programs on breast self-examination among undergraduate students. It emphasizes the necessity of regular breast self-examination as an essential component of breast cancer prevention and early detection strategies. By equipping young adults with the knowledge and skills to conduct breast self-examinations, the incidence of late stage breast cancer cases can potentially be reduced.

Further research is warranted to explore the long-term effects of such educational interventions and their potential impact on breast cancer outcomes.

REFERENCES:

1. Ansari Javed, PV Comprehensive Textbook of Medical Surgical nursing, 1ST edition: Jalandhar S. Vikas and Company Medical publisher, 2011, Pp-1264-1302
2. Basavanthapa BT, Nursing Research, Jayapee Publication, Reprint edition: 2006, Pp-420-25.
3. Brunner and Suddarth's. Textbook of Medical Surgical Nursing, Volume-2, 11th edition: Published by Walters Kluwer (India) Pvt. Ltd. New Delhi, 2011, Pp-1718-1752
4. 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](#)]
5. Shibuya K, Mathers CD, Boschi-Pinto C, Lopez AD, Murray CJ. Global and regional estimates of cancer mortality and incidence by site: II. Results for the global burden of disease 2000. *BMC Cancer.* 2002;2:37. [[PMC free article](#)] [[PubMed](#)] [[Google Scholar](#)]
6. Hortobagyi GN, de la Garza Salazar J, Pritchard K, Amadori D, Haidinger R, Hudis CA, et al. The global breast cancer burden: Variations in epidemiology and survival. *Clin Breast Cancer.* 2005;6:391–401. [[PubMed](#)] [[Google Scholar](#)]
7. GLOBOCAN 2008 (IARC) *Section of Cancer Information.* [Last accessed on 2011 Oct 06]. Available from: <http://www.globocan.iarc.fr/factsheets/populations/factsheet.asp> .
8. Raina V, Bhutani M, Bedi R, Sharma A, Deo SV, Shukla NK, et al. Clinical features and prognostic factors of early breast cancer at a major cancer center in North India. *Indian J Cancer.* 2005;42:40–5. [[PubMed](#)] [[Google Scholar](#)]
9. Tasci A, Usta YY. Comparison of Knowledge and Practices of Breast Self Examination (BSE): A Pilot Study in Turkey. *Asian Pac J Cancer Prev.* 2010;11:1417–20. [[PubMed](#)] [[Google Scholar](#)]
10. 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](#)]
11. 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](#)]
12. Okobia MN, Bunker CH, Okonofua FE, Osime U. Knowledge, attitude and practice of Nigerian women towards breast cancer: A cross-sectional study. *World J Surg Oncol.* 2006;4:11. [[PMC freearticle](#)] [[PubMed](#)] [[GoogleScholar](#)]