

# A cross-sectional study to assess knowledge about breast cancer awareness among novice nurses in tertiary cancer centre.

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## Abstract

**Breast cancer is the most common cancer found among women worldwide. Its incidence is increasing in many countries. Nurses are the future paramedical personnel who will have the opportunity to encourage and influence women to be aware of the prevalence of breast cancer. In Indian females, the age-adjusted ratio is as high as 25.8 per 100,000 women and mortality 12.7 per 100,000 women.**

**Aim: To assess the knowledge about breast cancer screening techniques among novice nurses. To assess the knowledge regarding screening in terms of breast self-examination clinical breast examination & mammography in novice nurses.**

**Methods: A survey-based cross-sectional study of 50 Sample sizes with a convenience sampling technique in Tata memorial hospital, assessed knowledge about breast cancer awareness among novice nurses in tertiary cancer centers. It was a fully mixed concurrent dominant status design with a dominant quantitative part where a Cross-sectional design was used. The qualitative component used phenomenology.**

**Keywords:** BSE (Breast Self-Examination), CBE (Clinical Breast Examination), Mammography.

## Introduction

The most widespread cancer in the world is breast cancer, accounting for 10.4% of the global load. Among Indian women, breast cancer is the second most common cancer after cancer of the uterine cervix and is the leading cancer in certain metropolitan cities such as Mumbai, Delhi, Nagpur, and Trivandrum [1]. Moreover, upon studying the trends of the major dominant cancers from the years 1982 to 2002 through various population-based cancer registries, it was observed that the incidence of breast cancer was steadily increasing among Indian women and carried on to be on the rise. Currently, 75,000 new cases occur among Indian women every year [2].

It is significant to view this number under the context that the national cancer registries barely sample 3% of the total population. These figures appear to be steady with the economic and social changes occurring in India, with a growing number of women espousing late marriage, thus having children at an older age, and low equality in general [3]. Research has also indicated that Indian women are afflicted by biologically damaging cancers, as shown by a lower incidence of estrogenic receptor-positive tumours and a higher frequency of c-erb B2. Both of these factors are related to a poorer prognosis, resulting in diminished chances of survival [4]. Therefore, with the overall risk of an Indian woman's chances of acquiring breast cancer augmented abundantly, it

is imperative that we come to terms with the reality of the utilitarian presence of this modern day. Increasing knowledge about breast cancer would go a long way towards the cure of this disease since breast cancer is a progressive disease with a preference for early dissemination and, consequently, detection of small tumours is more likely to be an initial stage disease, which would have an improved prognosis and a higher prospect of being efficiently treated [5]. Women, in general, and especially those over the age of 35 years, need to be more cultivated of the many existing screening modalities for breast cancer and also need to be heartened to adopt these trials as efficiently as they can. Screening for breast cancer includes mammography, clinical breast examination by a physician (CBE), and breast self-examination (BSE) [6].

Although mammography has been reputable as an effective procedure for early detection of breast pathologies, the mammographic transmission of an outsized populace cannot be upheld as a priority in India owing to its high cost. Breast self-examination (BSE), on the other hand, is simple, self-generated, repeatable at monthly intermissions, and cost-free. BSE involves a regular monthly methodical examination of the breasts and axillary area, both visually and by palpation, for any signs of abnormality. It has been observed that how a woman absorbs BSE can control the frequency with which she performs it, and therefore it is important for each woman to adopt the correct technique of performing BSE as confirmed by a nurse or physician [7].

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**Table 1.** Role of demographic factors on knowledge about breast cancer screening.

Sr.No	Variable name	BSE	CBE	Mammography	Total
		score	score	score	score
1	Age, Correlation	-0.068	-0.084	0.318	-0.016
	p-value	0.64	0.562	0.024	0.911
2	<b>Nursing Education, Median(IQR)</b>				
	B.Sc. (n=10)	9(2.25)	2(0.25)	2.00(0.25)	13.50(2.00)
	Others/ GNM + Oncology (n=40)	7(3.00)	3(1.00)	2.00(0.75)	12.50(4.00)
	p-value	0.36	0.114	0.696	0.65
3	<b>Clinical experience, Median(IQR)</b>				
	1-6 months,(n=28)	8(3.75)	3(1.00)	2(0.00)	13(4.00)
	6-12 months,(n=13)	7(3.00)	2(0.00)	2(0.50)	12(3.00)
	>1Years, (n=9)	9(2.50)	3(1.00)	2(1.50)	13(4.50)
	p-value	0.944	0.033	0.592	0.649
4	<b>Oncology experience, Median(IQR)</b>				
	1-6 Months,(n=30)	8(3.25)	3(1.00)	2.0(0.25)	13(4.00)
	6-12 Months,(n=11)	7(3.00)	2(0.00)	2(0.00)	12(3.00)
	1-3 Years,(n=9)	9(2.50)	3(1.00)	2.0(1.50)	13(4.50)
	p-value	0.949	0.097	0.565	0.595

## Objective

- To assess the knowledge about breast cancer screening techniques among novice nurses.
- To assess the knowledge regarding screening in terms of breast self-examination clinical breast examination & mammography in novice nurses.

## Methodology

A survey-based cross-sectional study of 50 Sample sizes with a convenience sampling technique in Tata memorial hospital, assessed knowledge about breast cancer awareness among novice nurses in tertiary cancer centres. It was a fully mixed concurrent dominant status design with a dominant quantitative part where a Cross-sectional design was used. The qualitative component used phenomenology.

Sample Size: 50

- Inclusion Criteria:
  - Novice Nursing staff
  - Age above 20 years
  - Willing to participate
- Exclusion Criteria:
  - Permanent staff

Sample Technique: Convenience Sampling

## Results

### Scoring procedure

There were 27 questions in our survey. Our questionnaire consists of demographic section (5questions), knowledge about BSE(13questions), CBE(5questions) & Mammography (4questions). Each correct answer was assigned one mark, &the wrong answer was allotted zero marks. The total score for each domain was calculated by summing the scores achieved for discrete questions under each sphere. Overall

information about breast cancer broadcast was retrieved by adding a domain-wise score (Table 1).

### **The role of demographic factors on knowledge about breast cancer screening represents the following results:**

- Correlation between age and BSE score, CBE score & Total score was found to be non-significant ( $p>0.05$ ). This means there is no significant role of age on knowledge about BSE, CBE & overall breast cancer screening. The correlation between age & scores on Mammography was found to be 31.8%.
- Median scores for BSE, CBE, and Mammography & overall were not significant with respect to education & oncology experience.
- Median score for CBE only was found significantly different with respect to clinical experience.

## Discussion

The finding of the study has further provided evidence that novice nurses lack appropriate information about breast cancer and its early detection measures. The study concluded that the knowledge about breast cancer screening and related factors among novice nurses was moderate in terms of the following.

- BSE (Breast Self-Examination)
- CBE (Clinical Breast Examination)
- Mammography

Need to make more awareness about Breast Cancer through an induction program, CNE, workshops, etc.

## Conclusion

This study can do in a large sample size. Knowledge of BSE, CBE, and mammography needs to be revised and its finding will help in the preparation of breast cancer-specific education.

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