

# A Study to Assess the Effect of Planned Teaching Programme on Knowledge about Breast Cancer and Breast Self Examination among the Women of Reproductive Age Group in Selected Rural Areas of Kamrup

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**Abstract:** *The present investigation was undertaken to study the effect of planned teaching programme (PTP) on knowledge about breast cancer and breast self examination (BSE) among the woman of reproductive age group in selected rural areas of Kamrup. One group pre-test post-test research design and multistage sampling technique was used to conduct the study. The sample size was 50. Pre-test was conducted by using structured self knowledge questionnaire regarding breast cancer and BSE and planned teaching programme was given on the same day. On seventh day post test was conducted. The collected data was analysed by using descriptive and inferential statistics. The study revealed that the mean post-test knowledge score regarding breast cancer and BSE was higher than the mean pre-test knowledge score. There was a significant difference between the mean post-test and pre-test knowledge score. From the present study it was concluded that most of the reproductive women had inadequate knowledge regarding breast cancer and BSE at pre interventional phase but after administering PTP on breast cancer and BSE the knowledge score of the reproductive women was increased. Hence PTP was effective teaching strategies in increasing knowledge about breast cancer and BSE.*

**Keywords:** Assess, Knowledge Breast cancer, Breast Self- Examination, Planned Teaching Programme, Reproductive woman.

## 1. Introduction

Breast cancer is one of the most common cancer in women both in the developed and developing country. The incidence of breast cancer is increasing in the world due to increase life expectancy, increase urbanization and changing life style. In India there is high mortality rate of breast cancer because of late diagnosis of the disease and lack of awareness and nonexistent breast cancer screening programme. According to the Indian council for medical research (ICMR) reports 1.5 lakhs new breast cancer cases in India of which 70,000 succumb every year. According to the estimates of the National Cancer Registry Programmer Report (NCDIR) 2020, released by the ICMR in association with National center for disease Informatics and Research (NCDIR), Bengaluru there will be about 13.9 lakhs cancer cases in 2020, which is likely to increase to 15.7 lakhs by 2025, based on current trends. Among women breast cancer is estimated to contribute 2.0 lakh (14.8%) and cervix cancer are estimated to contribute 0.75 lakh (5.4%). According to ICMR report 2019, among various types of cancers, the most common and frequently occurring cancer is breast cancer. Statistics shows that only one in every two women diagnose with breast cancer continues to survive. According to the World Health Organization (WHO) breast cancer is the most common cancer among women, claiming the lives of hundreds of thousands of

women each year and affecting countries at all levels of modernization

In India Breast cancer is the most common cancer in most cities and second most common in rural India. In Urban areas 1 in 28 woman suffer from breast cancer and in rural the incidence is relatively low 1 in 60, overall being 1 in 28 for the country. In India one woman is diagnosed with breast cancer every 13 minutes. In India in the year 2012, an estimated 70,218 women died of breast cancer. Only 60 % of women, who are treated for breast cancer, survive for at least five years post treatment in India, as compared to 89 % in US.

Breast cancer is characterized by the unrestricted growth of abnormal cells in the breast. Usually breast cancer either begins in the cells or lobules, which are milk producing glands or ducts, that passages that drain milk from the lobules to the nipple. In general breast cancer arises from the epithelial lining of the ducts (ductal carcinoma) or from the epithelial lining of the lobules (lobular carcinoma). Breast cancer may be in situ (within the duct) or invasive (arising from the duct and invading through the wall of the duct.). Breast cancer is a metastatic cancer and can commonly transfer to the other distant organs such as the bone, liver lung and brain, which mainly accounts for its incurability. Genetic factors, poverty and inaccessibility for quality treatment, inadequate awareness and knowledge of the disease are leading cause for the

increase incidence of breast cancer. Inadequate knowledge about the breast cancer is documented as an important factor in preventing woman visiting screening facilities, engaging Breast self-examination and delayed treatment and thus contributes to the high mortality and morbidity rate.

## 2. Literature Review

**M.A.O.Ahmed, N.M.M.Muneer, A.A.A.Randa (2021)** conducted an experimental study on the effectiveness of Breast Cancer Health Education Campaign and breast self-examination training among Female Detainees, Khartoum City-Sudan and found that the mean knowledge score about breast cancer increased significantly ( $p$  value =0.00) from 11.2(SD±8.22) to 26.1(SD ±14.19). Regarding knowledge about BSE, the overall mean of knowledge score was significantly higher in the post interventional phase ( $p$  value=0.000), changed from 1.54 (SD±2.18) to 2.33(SD±1.56). Also the percentage of those with a good attitude towards breast cancer and breast self-examination was higher in the post interventional phase.

**R.B.Sukhila, A.P.Jayanti (2020)** conducted a cross sectional study on knowledge about breast cancer and breast self-examination among female undergraduate students in Telangana, India and found that the first sign of breast cancer being a lump or mass (86.9 %), inheritance of abnormal gene (74.8%), rising age (73.5%), exposure to radiations/ certain hormones (89.0 %), late pregnancies (74.5 %) as risk factors was found to be known to most. Only 50.9 % recognized that BSE should be performed while standing, lying down and during baths. In conclusion it was revealed that majority had adequate knowledge about various aspects of breast cancer.

**D.Rita, A.Awolu (2019)** conducted a cross sectional research study among reproductive age women in Akatsi South District of Volta region of Ghana and found that 83.3% of the respondents were aware of breast cancer, 64.9% of the respondents had good or sufficient knowledge of breast cancer and only 94 (37.6%) practice BSE. Over 50% of the respondents did not know how to perform Breast self-examination.

## 3. Methodology

**Research approach:** Descriptive survey approach.

### Research design:

Pre-experimental one group pre-test post-test research design was adopted. There is no control group.

### Setting of the study:

Under rural areas of Azara, Kamrup District, Assam two Sub centres were selected. Then from each Sub Centers, one village was selected.

### Population:

The accessible population for this study comprises of all the reproductive women residing in randomly selected villages namely Garbhanga and Belguripara under Garbhanga and Mirzapur Sub centres of Azara BPHC Kamrup District Assam.

### Sample size:

In the present study, the sample size was 50.

### Sampling technique:

Multistage sampling technique was used.

### Sampling Criteria:

#### Inclusion criteria

Women who are willing to participate in the study.

#### Exclusion criteria

Women who have been exposing to previous teaching programme regarding breast cancer and breast self-examination, Health care professionals, women who have previous history of breast cancer, women who are mentally or physically unstable.

### Variables:

#### Socio-demographic variables

In these study socio-demographic variables includes age, marital status, Religion, Occupation, Monthly family income, type of family, educational qualification, heard about BSE, source of information, Family history of breast cancer and Relationship with the patient.

#### Independent variable

In this study the independent variable was Planned Teaching Programme.

#### Dependent variable

The dependent variable in this study was knowledge of the reproductive women.

#### Development of the tool:

A structured questionnaire was developed to assess socio-demographic variables, pertain knowledge on breast cancer and breast self-examination. Also a lesson plan for planned teaching program was developed on breast cancer and importance, steps of breast self-examination.

#### Description of the tool:

The tool for collecting data was a structured questionnaire consisting of following sections.

#### Section I

**Part I:** Tool consists of socio-demographic variables like age, marital status, Religion, Occupation, Monthly family income, type of family, educational qualification, heard about BSE, source of information, Family history of breast cancer and Relationship with the patient.

## Section II: Structured self-administered knowledge questionnaire

It includes structured (multiple choice questions) knowledge questionnaires to assess the knowledge of reproductive women regarding breast cancer and breast self-examination.

The knowledge scores for both the part I and part II were allotted as follows

- Correct: 1
- Wrong: 0
- Maximum possible score: 11

The knowledge score was divided into three parts:

- Inadequate  $\leq$  mean – standard deviation
- Moderate = (mean – standard deviation) to (mean + standard deviation)
- Adequate  $\geq$  mean + standard deviation

### Data collection procedure:

Pre test was conducted with the help of self-structured questionnaire and Planned teaching programme was given by using charts, flash cards, and model on breast self-examination on the same day of the pre- test. After 7 days, post test was conducted.

### Plan for data analysis

After collection of data, the data would be organized, tabulated and interpreted by using descriptive and inferential statistics. Knowledge before and after PTP is described by mean, median and mean difference and standard deviation and paired t test for showing the significance difference between mean pre-test knowledge and mean post test knowledge score. To find out the association between pre-test score of knowledge with the demographic variables chi-square test was used.

## 4. Results

The major findings of the study are as follows:

- The majority 36% women were belonged to the age group of 34-41 years, followed by 26% of them belonged to the age group of 42-49 years, 22% belonged to age group 24 - 32 years and 16% belonged to 15 - 23 age group.
- Majority 64% of the reproductive women were married, followed by 20% of them who were unmarried and remaining 14% widowed and 2% divorced
- 86% of the reproductive women were Hindus, followed by 14% were Muslims.
- Majority 80% of the reproductive women were housewives, followed by 16% of them were students and 4% of them were doing private job respectively.
- Highest 42% percentage of reproductive women had monthly income of Rs 10001-20,000, 24% had monthly income Rs 20,001-30,000, 22% had monthly income less than Rs 10,000, whereas only 12% respondents with more than Rs 30,001 monthly income.

- 52% of the reproductive women were residing in joint family followed by 48% were from nuclear family.
- Majority (44%) of respondents had completed educational qualification till primary school, followed by 24% of them were completed graduate and above and 16 % were middle school and high school.
- Only 24% reproductive women were heard about breast self-examination other 76 % had never heard about Breast self-examination.
- Majority of the 58% reproductive women were heard about breast self-examination from their friend and 42 % from others.
- 16% of the reproductive women had reported about their family history of breast cancer.
- Only 16 % of the respondents had family history of breast cancer, 8% of them were sisters of the respondents, 6% were cousins and 2% were aunt respectively.
- Majority 56% of the respondents in pre-test had inadequate knowledge followed by 36% of them had moderately adequate knowledge and only 8% had adequate knowledge about breast cancer.
- Majority 74% of the respondents in post-test had adequate knowledge followed by 20% of them had moderately adequate knowledge and only 6% had adequate knowledge about breast cancer.
- Majority 60% of the respondents in pre-test had inadequate knowledge about breast self-examination, followed by 30% had moderately adequate knowledge and only 10% had adequate knowledge regarding breast self-examination.
- Majority 76% of the respondents in post-test had adequate knowledge about breast self-examination, followed by 18% had moderately adequate knowledge and only 6% had adequate knowledge regarding breast self-examination.
- The mean post-test knowledge score on breast cancer and breast self-examination is 2.68 and 2.70, is higher than mean pretest knowledge score 1.52 and 1.50
- The standard deviation (SD) of post-test knowledge score on breast cancer and breast self-examination was 0.587 and 0.580, is lower than standard deviation (SD) of pre-test knowledge score 0.646 and 0.678.
- Analysis with paired 't' test showed that the total post-test knowledge score of breast cancer and breast self-examination was \*9.394 and \*9.511 at  $p \leq 0.05$  which supports that the planned teaching programme was effective in increasing the knowledge of breast cancer and BSE.
- The statistical analysis revealed that the association between educational qualification with pre-test scores of knowledge regarding breast cancer was statistically significant ( $p$ -value $<0.05$ ). However, remaining variables remains insignificant with  $p$ -value greater than 0.05.
- It was found that the association between educational qualification of the reproductive women and heard about breast self-examination with their pre-test scores of knowledge regarding breast self-examination was statistically significant ( $p$ -value $<0.05$ ). However, there

was no significant association between the remaining socio-demographic variables.

## 5. Discussion

Discussion as per the objective of the study:

### Objective 1: To assess the pre-test and post-test knowledge of breast cancer among the women of reproductive age group

The findings of the present study revealed that out of 50 women 56% of the respondents in pre-test had inadequate knowledge followed by 36% of them had moderately adequate knowledge and only 8% had adequate knowledge about breast cancer. In the post-test 74% had adequate knowledge, 20% had moderately adequate knowledge and only 6% had inadequate knowledge regarding breast cancer.

In congruence with this study another study conducted by G. Sathyavath, V. Manakula (2021) on effectiveness of structured teaching programme on knowledge regarding Breast cancer among the reproductive age group women at Mailam Village, Villupuram, Tamilnadu". Sample size was 50. Results found that in the pretest 54 % had inadequate knowledge, 46% had moderate knowledge and 0% had adequate knowledge, and the Posttest level of knowledge 96% had adequate knowledge, 2% had moderate and inadequate knowledge regarding breast cancer.

A Similar type of pre experimental study was conducted by G.R.Nema (2020) and found that in pre- test out of 40 participants, majority (77.5%) of the women had poor knowledge and 9(22.5%) women had average knowledge on BSE. In the post test around half (45%) of the women had good knowledge, 16 (40%) had poor knowledge and 6(15%) had average knowledge and practices score on BSE were poor at pretest and improved significantly after an educational intervention.

### Objective 2: To assess the pre test and post test knowledge of breast self-examination among the women of reproductive age group

In this study results found that majority 60% of the respondents in pre- test had inadequate knowledge about breast self-examination, followed by 30% had moderately adequate knowledge and only 10 % had adequate knowledge regarding breast self-examination. In the post- test majority 76% of the respondents in post- test had adequate knowledge about breast self-examination, followed by 18% had moderately adequate knowledge and only 6 % had inadequate knowledge regarding breast self-examination

Also this present study was supported by a study conducted by Hemavathy. V., Girijabhaskaran and Ningombam Rabita Devi (2017) Result showed that majority 76% had inadequate knowledge, 24% had moderately adequate knowledge about breast self- examination. In posttest 53 % gained moderately

adequate knowledge 33% gained adequate knowledge, 14% gained inadequate knowledge.

### Objective 3: To assess the effect of planned teaching programme on knowledge about breast cancer and breast self –examination

The mean post -test knowledge score of breast cancer and breast self-examination was 2.68 and 2.70 higher than mean pre- test knowledge score 1.52 and 1.50. The obtained standard deviation of knowledge regarding breast cancer and BSE during post- test was 0.587 and 0.580 and the pre- test standard deviation for breast cancer and BSE was 0.646 and 0.678. The obtained 't' value for the pre- test and post -test knowledge of breast cancer and BSE was \*9.3945 and \*9.511 when compared to table value was found to be significant at 0.05 level. So that the planned teaching program has a significant effect in increasing knowledge level regarding breast cancer and BSE.

Likewise, a similar type of study was conducted among B.Sc. nursing students by S.Ishpita, M.pushpanjali (2020) showed that the STP enhance the knowledge level of students regarding BSE) before intervention 11.58±3.56 and after intervention 18.05±2.57. Study reveals that there was a significant difference in knowledge score after intervention as the calculated 't'test value and 'p' value were 11.38 and 0.00001 respectively. Hence the research hypothesis was accepted.

### Objective 4: To find out the association between pretest knowledge of breast cancer and selected socio - demographic variables

The findings of the present study association of educational status and pretest knowledge of breast cancer was computed by using ( $\chi^2$ ) for a probability of 0.05 was 13.33 at 6 degree of freedom.

A similar pre experimental research study was conducted by F.Khemchand, Nagarajaiah (2015) and found that there was a significant association between the pretest knowledge score and variables like age ( $\chi^2=12.82$ ,  $p<0.05$ ) and educational status of the women ( $\chi^2=11.6123$ ,  $p<0.05$ ).

### Objective 5: To find out the association between pretest knowledge of breast self-examination and selected socio - demographic variables

The findings of the present study association of educational status and knowledge of BSE was computed in the study using ( $\chi^2$ ) for a probability of 0.05 was 14.41 at 6 degree of freedom

Similarly, this was supported by another study by D.Rita, A.Awolu (2019) assess the knowledge and practice of breast self-examination among reproductive women in Akatsi South district of Volta region of Ghana. Result showed that 88.3% of the respondents were aware of breast cancer and only 37.6% practice BSE. Over 50% of the respondents did not know

about breast self-examination. There was a significant association between knowledge on breast cancer and educational status of the women ( $X^2= 36.218$ ,  $p=0.000$ )

## 6. Conclusion

The study was conducted to find out the effect of planned teaching programme regarding breast cancer and breast self-examination among the women of reproductive age group. The findings of the study showed that in the pre -test there was lack of knowledge regarding breast cancer and breast self-examination. After the administration of PTP majority of them had acquired adequate knowledge about breast cancer and BSE. On the basis of the findings of the study it can be concluded that the planned teaching programme is effective in improving the knowledge of reproductive women regarding breast cancer and BSE

## 7. Recommendation

A similar study can be conducted among reproductive women in large samples. The study can be conducted among different groups in hospital and community setting. A similar study can be conducted to assess the practice and attitude of reproductive women regarding breast cancer and breast self-examination. It is recommended that the study can be conducted in health personal so that in service education can be conducted accordingly. The study can be conducted using various research designs.

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