

To evaluate the effectiveness of a structured teaching program on knowledge regarding breast self-examination among nursing students

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Abstract : Breast cancer is by far the commonest cancer identified in women internationally, positioned second in both sexes collectively. Breast Self-Examination (BSE) leads to a lesser incidence of progressive breast cancer or mortality from breast cancer among women who were prudently trained in the procedure. Study was done with an objective to evaluate the effectiveness of structured teaching programme on knowledge regarding B.S.E among nursing students. Quantitative approach was considered appropriate with one group pretest & post-test research design. The study was conducted at Faculty of Nursing, SGT University, Budhera, Gurugram, Haryana. The sample were 40 nursing students of age group 18-26years & above who full-fill the inclusion criteria. Non probability Convenience sampling technique was used in the present study. Two Tools were used; First tool consisted of 13 items for obtaining information of demographic variables such as Age, Religion, Education, Type of family etc. Second tool consisted of 25 MCQ's to evaluate the knowledge regarding breast self-examination amongst nursing students. The 't' value of the mean pre-test knowledge score & post-test knowledge score was found to be -7.37 at level of significant $p < 0.05$. The present study concludes that a structured teaching Program is effective in term of gain in knowledge regarding Breast Self- Examination among nursing students.

Key Words: Breast Self-Examination, Knowledge Regarding Breast Self-Examination, Structured Teaching Program, Effectiveness of A Structured Teaching Program, Nursing Students

Introduction:

Our human life form makes its very first connection with the world by holding on to mother's breast for breast milk. Breasts are very important organ for every woman as these are the symbols of motherhood and womanhood. So any diseases affecting breasts particularly breast cancer is affects the whole women physically as well as emotionally. Breast cancer is an uncontrolled growth of breast cells and is the most common cancer affecting women globally, in lower as well as middle income group countries. In breast cancer, breast tissues start multiplying at uncontrolled rate and lead to tumor formation and in case that tumor proliferates to surrounding tissues, cancer becomes malignant.

Etiology of breast cancer is uncertain, but health specialists have recognized aspects that lead to augmented risk. Some inevitable contributors to breast cancer are sex, race, ethnicity, age, family history, inherited genes, early menstruation, and late menopause. There are some lifestyle risks that if controlled can lower the risk of breast cancer. These are alcohol intake, obesity, sedentary

lifestyle, not conceiving before the age of 30, and taking birth control and hormone therapy after menopause. Nearly 1.7 million new cases were diagnosed in 2012, representing 25% of all cancers in women. Current statistics suggest that a shortfall of diagnostic services in less developed regions can be a major cause of increased number of breast cancer in developing countries. Timely detection is the best way to treat and avert the progress of this deadly disease.

Normally, the cells in our bodies restore themselves through a systematic process of cell division. As old cells age and die out, healthy new cells substitute them. Any mutation or abnormal changes in the genes responsible for regulating the growth of cells and keeping them healthy, results in cancer. The genes are present in each cell's nucleus, and behave as the "control room" of each cell. Breast cancer is a malignant multiplication of epithelial cells reinforcing the ducts or lobules of the breast.

But over the period of time, mutations can "turn on" certain genes and "turn off" others in a cell. That transformed cell gains the capability to keep dividing without control or order, generating more cells just like it and developing a tumor. The term "breast cancer" refers to a malignant tumor that has progressed from cells in the breast. Usually breast cancer either commences in the cells of the lobules, which are the milk-producing glands, or the ducts, the channels that drain milk from the lobules to the nipple.

Despite the magnitude of the problem, currently, no practical technique of primary preventions are available. However, a progressive stage of breast cancer is noticeably linked with a poor prognosis. Thus, screening (secondary prevention), which aims at early detection and treatment before it spreads to other organs, is an essential approach for managing this disease. A lack of community educational program on breast cancer leads to its detection at late stage especially in the developing countries. Yet a lesser incidence of progressive breast cancer or mortality from breast cancer among women who were prudently trained in the procedure of Breast Self-Examination (BSE) and adequately implemented the program using optimal visual and palpation techniques is achieved.

Need For Study:

Breast cancer is by far the commonest cancer identified in women internationally, positioned second in both sexes collectively. It constitutes 22% of all cancer cases worldwide. Although

there is no cancer registry in Ethiopia, hospital registers confirm that there are more than 200,000 cancer cases per year where cervical and breast cancers are the two topmost cancer types.

In the year 2019, about 268,600 cases of invasive breast cancer and 42,260 deaths occurred in the United States alone. Women who experience menarche at age 16 have only 50 to 60% of the breast cancer risk of a woman having menarche at age 12; the lower risk persists throughout life.

The average 5years survival rate for women with invasive breast cancer is 90 %. The average 10years survival rate is 83%. There are approximately 13% chances that a woman will be detected with aggressive breast cancer in her lifetime and probability that 3% of women will succumb to death due to this fatal disease.

Incidence of Cancer touches a highest level of 16.7% in the age bracket of 45-49 years (Ozmen, 2013; Bilge and Keskin 2014). There is a very high increase in the incidence of breast cancer after the age of 30 years as compared to before the age of 30 and this escalation continues gradually post menopause.

PCBR (Population Based Cancer Registry) assessed that in various cities like Mumbai, Delhi, Bengaluru, Bhopal, Kolkata, Chennai, Ahmedabad, breast cancer accounts for 25% to 32% of all female cancers. This infers, basically, 25% of all female cancer cases are breast cancers. The Malawa belt in Punjab has recorded high incidence of breast cancer in the State, according to a study by the United Kingdom-based non-governmental organization, "Roku Cancer," which is working in collaboration with the State Health Department. Study was conducted with an aim to evaluate the effectiveness of structured teaching program on knowledge regarding Breast Self-Examination among nursing students.

The study assumed that Students may have some knowledge related to breast self-examination Students may be willing to express their knowledge and Planned teaching program may improve the knowledge of students regarding breast self-examination.

This study is limited to nursing students who are willing to participate in the study, Students who will be available at the time of data collection and the data collection period is limited to 4 weeks

Research methodology

To achieve the objectives to be accomplishing a quantitative approach was used. The research design used in this study was is one group pretest & post-test research design. The study was conducted at SGT University, Gurugram, Haryana. The sample size for this present study was 40 nursing students of age group 18 – 26 years & above. Non probability Convenience sampling technique was used in the present study. Inclusion Criteria are students between the age group of 18–26 years & above, students who are studying in B.Sc. Nursing 4th year and MSc Nursing 1st year students, Students willing to participate in the study and Nursing students who can read and understand in Hindi or English. Exclusion Criteria are the students who are not willing to participate in the study and students who are not available at the time of data collection. Data collections tool are section A: This consists of 13 items for obtaining information of demographic variables of nursing students girls studying in Faculty of Nursing, SGT University, Budhera, Gurugram such as age, religion, education, type of family etc. section- b: Structured questionnaire to evaluate the knowledge regarding breast self-examination amongst nursing students. It consists of 25 MCQs in which the respondent has to choose the correct one. For every correct answer score was 1 & for incorrect score was 0.

Ethical consideration:

The pilot study and the main study were conducted after the approval from the department, Research committee and ethical committee. Permission was obtained from the Dean of Faculty of Nursing. Study was explained to the subjects. Informed consent was obtained from them. Assurance was given regarding maintaining confidentiality of data collected. Knowledge was assessed regarding breast self-examination with the help of structured questionnaire in nursing students of age group 18-26 years & above was distributed and requested to be filled by the respondents. Planned teaching Programme was delivered and a post-test was conducted next day.

Results:

Figure reveals that 72.5% girls were in age of 21-23 years, 17.5% girls were in age of 24-26 years & 10% girls were in age of 18-20 years. Hence, it was concluded that majority of girls belongs to age of 21-23 years.

Figure 2 depicts that 70% belongs to urban area & 30% belongs to rural area. Hence, it was concluded that majority of girls belongs to urban area.

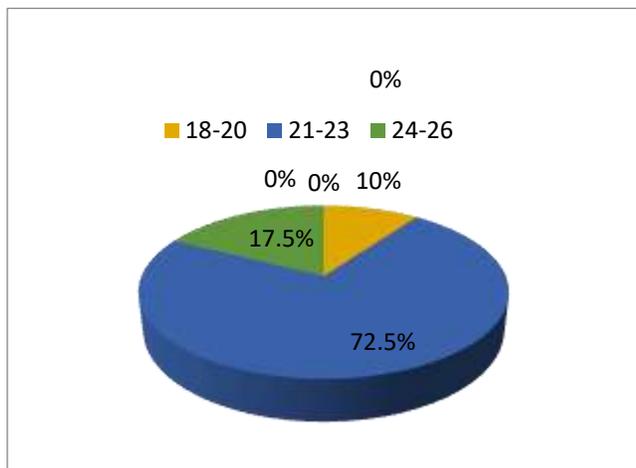


Figure 1 Percentage distribution of Nursing students according to age

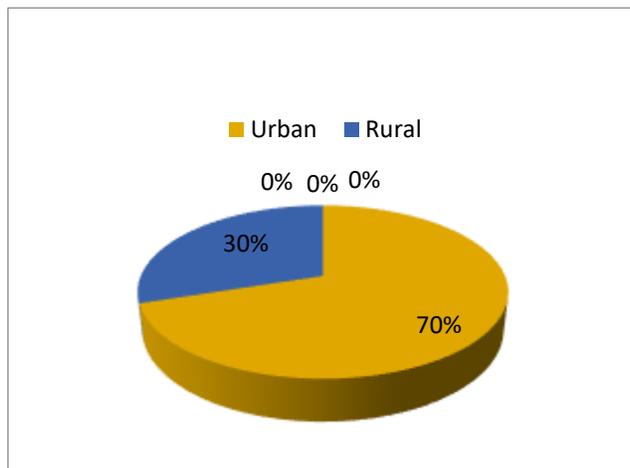


Figure 2 Percentage distribution of Nursing students according to residence

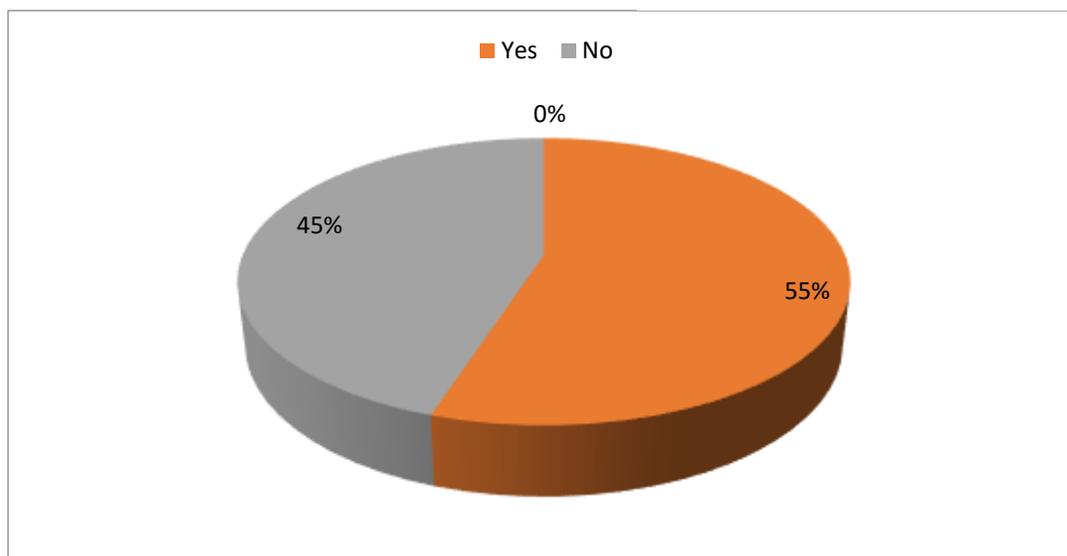


Figure 3 Percentage distribution of Nursing students according to performance of breast self-examination.

Figure reveals that 55% girls performed BSE & 45% girls was not performed BSE. Hence, it was concluded that majority of girls perform BSE.

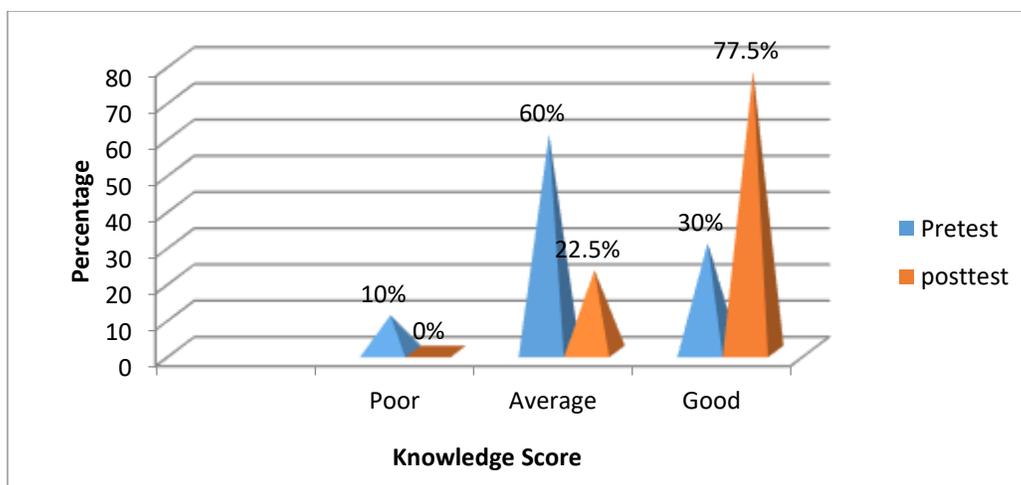


Figure 4 Percentage distribution of pretest and posttest score on knowledge regarding breast self-examination among nursing students.

Figure 4 reveals that 10% of girls had poor knowledge in pretest & came down to 0% in posttest. 60% of girls had average knowledge in pretest & which decreased to 22.5% in posttest. 30% of girls had good knowledge in pretest which rose to 77.5% in posttest. Hence, it was concluded that majority of girls were having average knowledge in pretest & majority of girls had good knowledge in posttest.

Table 1: Comparison of mean pretest score with mean post test score.

N=40

| Pre-test score Mean \pm SD (Range) | Post test score Mean \pm SD (Range) | t-value df p value |
|--|---|--------------------------|
| 14.45 \pm 3.64 | 17.78 \pm 2.57 | -7.37 39 0.000* |

*=significant difference as p value <0.05

Table 1 shows the comparison of pre-test & post-test knowledge score to evaluate the effectiveness of structured teaching program in terms of gain in knowledge scores among nursing students. The 't' value of the mean pre-test knowledge score & post-test knowledge score was found to be -7.37 at level of significant $p < 0.05$. Therefore, it was concluded that there

was a significant difference in pre-test & post-test knowledge score to evaluate the effectiveness of structured teaching programme in term of gain in knowledge score among nursing students.

Major Findings of this study:

- ✚ According to age, majority 72.5% female students were in the age group of 21-23years, 17.5% of them were in the age group of 24-26 years, and 10% of the female students were in the age group of 18-20 years.
- ✚ Regarding religion majority 97.5% of them were Hindu's, remaining 2.5% of the female students were Christian.
- ✚ Regarding education of the mother majority 52.5% of the mothers had secondary education, 22.5% of the mothers were senior secondary education, 12.5% of the mothers had graduation and 7.5% of the mother's illiterate.
- ✚ Regarding education of father majority 40% of the father had senior secondary education 30% of the father had graduation, 20% of the father had secondary education.
- ✚ Regarding to area of residence majority 70% of them living in urban remaining 30% of them was living in rural areas.
- ✚ In the pretest and posttest level of knowledge regarding breast self-examination. Majority of female students in pre- test 60 of them (60%) had average knowledge, 30 of them (30%) had good knowledge and 10 of them (10%) had poor knowledge regarding breast self-examination but in posttest majority 77.5 of them (77.5%) had good knowledge, 22.5 of them (22.5%) of them had average knowledge and none of them poor knowledge regarding Breast self-examination.
- ✚ The difference between overall pretest and posttest mean scores of knowledge regarding breast self-examination. 17.78 of the group were higher than mean pre-test scores of knowledge regarding breast self-examination 14.45. The obtained Standard deviation of knowledge regarding breast self-examination during posttest was 2.57 and the pretest standard deviation was 3.64. The obtained "t" value for the pre -test and post test scores of knowledge regarding breast self-examination is 0.000* when compared to table value (-7.37) was found to be significant at 0.05 level. So that the structured teaching program has a significant effect in increasing the knowledge regarding breast self-examination among nursing students.

- ✚ It is evident that there exists a significant association of age with post-test knowledge score of nursing students regarding breast self-examination as the p value is 0.002($p < 0.05$).
- ✚ Regarding association of educational background of student with post-test knowledge score is highly significant at 0.05 level of significance as p value is 0.021 and is less than 0.05. Related to education of mother the p value is 0.47, suggesting a non-significant association of mother's education with post-test knowledge score. Considering education of father, p value is 0.75 i. e. less than .05, suggesting a non-significant association of father's education with post-test knowledge score. Regarding area of residence, p value is 0.823 which is less than .05 thus leading to its non-significant association with post-test knowledge score.

Conclusion:

The study concluded that there was a significant difference in knowledge score of nursing students before and after administering the structured teaching programme (STP) regarding breast self-examination. The association of posttest knowledge score regarding breast self-examination among nursing students was found significant with age and educational background of student. It was proven that the effectiveness of structured teaching program was effective for nursing students regarding breast self-examination.

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Conflict Of Interest

The authors certify that they have no involvement in any organization or entity with any financial or non-financial interest in the subject matter or materials discussed in this paper.

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