



Original Research Article

Effectiveness of Planned Teaching Program (PTP) on Knowledge Regarding Breast Self Examination among the Nursing Students in Punjab

Kanika Rai¹, Sandeep Kaur²

¹Assistant Professor, Maharishi Markandeshwar College of Nursing, Mullana, Ambala

²Assistant Professor, Silver Oaks College of Nursing, Abhipur, Mohali

Corresponding Author: Kanika Rai

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ABSTRACT

Breast cancer is probably the most feared cancer in women because of its Frequency and psychosocial impact. Studies have proven that breast self examination is very effective method in early detection of breast cancer. Planned teaching program is one of the most effective teaching strategies, which can be used for improving the knowledge and skill of people. The objectives of the study were to:- to assess the pretest knowledge score regarding B.S.E. among the nursing students, to assess the post test knowledge regarding B.S.E. among the nursing students, to evaluate the effectiveness of planned teaching program on knowledge regarding B.S.E. among the nursing students and to find out the association of knowledge with selected demographic variables. A quantitative research approaches with Quasi-experimental: one group pre-test, post-test design was used for the study. The sample consisted of 50 nursing students who were selected using stratified proportionate random sampling technique. Pre test was administered by using structured knowledge questionnaire and planned teaching program was given on the same day. On eighth day post test was conducted. The collected data was analyzed by using descriptive and inferential statistics. The mean post test knowledge score of the students (30.98) was higher than mean pretest knowledge score (15.66). Also mean scores were higher in all the areas in post test. There was a significant difference between the mean post test and pre test knowledge scores [$t(49) = -43.572$]. Hence, it was concluded PTP was effective teaching in improving knowledge of nursing students regarding BSE.

Key Words: Breast cancer, Breast self examination, knowledge, PTP, Nursing students.

INTRODUCTION

Our relationship with the world starts from mother's breast milk. Breasts are very important organs for every woman as these are the symbols of motherhood and womanhood. So any diseases affecting breasts particularly breast cancer is important.^[1]

Breast cancer is an uncontrolled growth of breast cells. Cancer occurs as a result of mutations, or abnormal changes, in the genes responsible for regulating the growth of cells and keeping them healthy. The genes are in each cell's nucleus, which acts as the "control room" of each cell. Normally, the cells in our bodies replace themselves through an orderly

process of cell growth: healthy new cells take over as old ones die out. But over time, mutations can “turn on” certain genes and “turn off” others in a cell. That changed cell gains the ability to keep dividing without control or order, producing more cells just like it and forming a tumor. The term “breast cancer” refers to a malignant tumor that has developed from cells in the breast. Usually breast cancer either begins in the cells of the lobules, which are the milk-producing glands, or the ducts, the passages that drain milk from the lobules to the nipple. Less commonly, breast cancer can begin in the stromal tissues, which include the fatty and fibrous connective tissues of the breast. [2]

Breast cancer is by far the most common cancer diagnosed in women worldwide, ranking second in both sexes combined. An estimated 1.38 million women across the world were diagnosed with breast cancer in 2008, accounting for nearly a quarter (23%) of all cancers diagnosed in women, (11% of the total in men and women). Incidence is generally high in the developed countries and markedly lower in developing countries. Female breast cancer incidence rates vary nearly five-fold across the regions of the world. In 2008, rates ranged from around 20 per 100,000 in eastern and middle Africa to 90 per 100,000 in Western Europe. The countries with the highest incidence rates in 2008 were Belgium and Denmark i.e. 109 and 101 per 100,000, respectively. The incidence rate for UK women was high at 11th highest out of 184 countries worldwide. [3]

PBCR (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 implies, practically, one fourth of all female cancer cases are breast cancers. [4]

The Malwa belt in Punjab has recorded high incidence of breast cancer in the State, according to a study by the United Kingdom-based non-governmental organisation, “Roko Cancer,” which is working in collaboration with the State Health Department. The Malwa region borders Rajasthan. While 92 cases were detected in 12 districts through 86 camps, in which a total 5,670 mammography tests were conducted from 2006 to 2009, as many as 131 suspected cases were detected through 894 mammography tests in Mansa, Bathinda and Muktsar districts from September 2009 to December 2009. [5]

Breast self-examination (BSE) involves checking the breasts to help detect breast problems or changes. Many breast problems are first discovered by women themselves, often by accident. Breast lumps can be noncancerous (benign) or cancerous (malignant). Breast cancer can occur at any age, though it is most common in women older than 50. A breast self exam is a check-up a woman does at home to look for changes or problems in the breast tissue. Once a woman knows what the breasts normally look and feels like, any new lump or change in appearance should be evaluated by a doctor. Many women feel that doing this is important to their health. However, experts do not agree about the benefits of breast self exams in finding breast cancer or saving lives. The best time to do a self breast exam is about 3 - 5 days after your period starts. The breasts are not as tender or lumpy at this time in the monthly cycle. If a woman has gone through menopause, the examination is to be on the same day every month. [6]

Breast cancer is probably the most feared cancer in women because of its frequency and psychosocial impact. It affects the perception of sexuality and self- image to a degree greater than any other cancer. Breast self-examination has

been recommended by the American Cancer Society and other healthcare practitioners since 1950s as a safe, non-invasive procedure for early detection of breast cancer. Although, all women report knowing about breast self examination few of them know the correct technique of doing breast self examination. [7]

Haji-Mahmoodi M et al. (2002): conducted a cross-sectional study to examine the knowledge of breast cancer, attitudes toward breast self-examination (BSE), and practice of BSE among a sample of 410 women from seven health centers. The study findings suggest that the knowledge and behaviors of female health care workers concerning breast cancer is relatively poor and it needs to be improved. Considering the role that health care workers may play in communicating health behaviors to the general public, planning health education interventions for this group of females is essential. [8]

Alwan N A and colleagues (2012): noted that the most common reason for not doing BSE was lack of knowledge of how to perform the technique correctly. Almost 84% of the female participants were willing to instruct others in the technique of BSE. [9]

India's socio cultural aspects are such that the clinical examination may not be possible because of the hesitancy of women and economical circumstances. Moreover, many studies have been conducted to assess the knowledge and practice of BSE and its effect on early detection of breast cancer. But still the practice is not being done and the statistics of breast cancer are increasing rapidly. Moreover it is noted that the most common reason for not doing BSE is lack of knowledge of how to perform the technique correctly. This has aroused the interest of the researchers to conduct this study and the researchers are particularly interested to assess the effect of planned

teaching program (PTP) on the knowledge and practice of BSE.

Objectives of study:

1. To assess the pretest knowledge score regarding B.S.E among the nursing students.
2. To assess the post test knowledge regarding B.S.E among the nursing students.
3. To evaluate the effectiveness of planned teaching program on knowledge regarding B.S.E among the nursing students.
4. To find out the association of knowledge with selected demographic variables.

MATERIALS AND METHODS

The research approach adopted for the study was quantitative approach and the design was "Quasi-experimental" with one group pre-test-post-test design.

The independent variable in the study was planned teaching programme (PTP) and the dependent variable was knowledge of students regarding breast self examination. The extraneous variables were age, age at menarche, religion, area of residence, marital status, course of study.

A sample of 50 nursing students was selected using proportionate stratified random sampling technique.

Sampling Criteria:

1. Students between the age group of 18 - 24 years.
2. Students who were studying in B.Sc. Nursing 1st year and Post Basic Nursing 1st year.
3. Students willing to participate in the study.

The tools developed and used for data collection was Performa for demographic variables and a structured knowledge questionnaire on breast self examination. The structured questionnaire consisted of 38 questions.

Development of Planned Teaching Program:

The planned teaching program (PTP) for students was developed after reviewing the literature, seeking opinion from the experts and from personal experience. The first draft of planned teaching program was developed after reviewing the available literature and consulting with the experts. A criteria checklist was prepared to assess the validity of teaching programme. A.V Aids were prepared according to need and suggestions of experts.

The content validity of the tools was established by 13 experts from nursing field. There was 100% agreement among the experts regarding the tool. They gave suggestions to modify the tool. Based on their suggestions and opinion, the tool was reframed. Finally a tool with demographic variables containing 7 items in section A and 38 questions about knowledge regarding BSE in section B was structured.

The reliability co-efficient for structured knowledge questionnaire was calculated using Kuder-Richardson-20 and the result was 0.71. The tool was found to be valid, reliable and feasible for the purpose of the study.

Pilot study was conducted on 20th May 2013 in order to check the reliability, validity, feasibility and practicability. It was conducted in Gian Sagar College of nursing, Ramnagar, Tehsil Rajpura, Distt Patiala, Punjab.

The final data collection period extended from 4th June 2013 to 12th June 2013. Formal permission was obtained from the Principal-Director Swift Institute of Nursing prior to the final data collection. Before data collection, the investigators familiarized themselves with the subjects and explained the purpose of the study to them. Confidentiality was assured of all subjects. An informed consent was taken from the subjects. Anonymity of the subjects

was maintained. On day one, pre-test was conducted by administering structured knowledge questionnaire to 50 students. The planned teaching program was administered on the same day in the afternoon with the help of A-V aids. On the eighth day, post-test was conducted using the same tool. An average time of 10-15 minutes was taken by the students to complete the questionnaire and it took about 45 minutes for the implementation of PTP.

Statistical analysis: The data obtained was analyzed using both descriptive and inferential statistics i.e. mean, median and standard deviation, and 'Paired 't' test' (for evaluating the effectiveness of PTP) and chi-square test (for finding out the association of level of knowledge with selected demographic variables). The hypotheses were tested at 0.05 level of significance. SPSS version 17.0 was used for analysis.

RESULTS

Sample Characteristics: Out of 50 nursing students, majority of the students (62%) were in the age group of 18-19 years, three (6%) of 20 years, (14%) each of the age of 22 years and 23 years respectively and only two subjects (4%) were of the age of 24 years. Fifteen (30%) out of the total students achieved menarche at the age of 14 years, thirteen (26%) at the age of 13 years, nine (18%) at the age of 15 years whereas only one (2%) of the total students achieved menarche at the age of 11 years. Maximum number of students (76%) belonged to Sikh religion and (24%) belonged to Hindu religion. Majority of the students (74%) belonged to urban area and (26%) were from rural area. All of the students (100%) were unmarried. Out of total subjects, most of the students (78%) were of B.Sc. Nursing and (32%) were from Post Basic B.Sc. Nursing.

Evaluation of knowledge scores of pre test and post test regarding B.S.E among nursing students: The knowledge scores of

individual subjects before and after the administration of PTP on structured knowledge questionnaire are shown in the Figure 1.

The data given in Figure 2 shows the mean pre-test and post-test knowledge scores of nursing students regarding BSE.

The data given in Figure 3 shows the level of knowledge of nursing students regarding BSE.

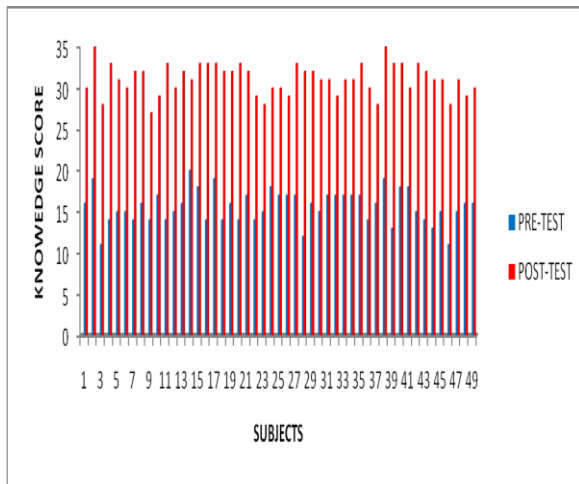


Figure 1: Bar graph showing knowledge scores of individual nursing students before and after the administration of PTP on structured knowledge questionnaire.

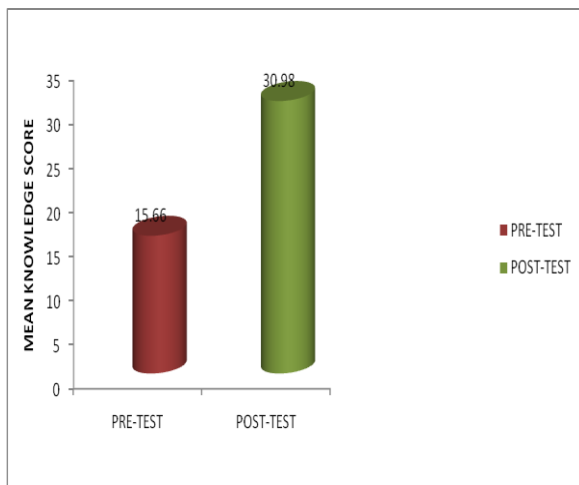


Figure 2: Cylindrical diagram showing mean pretest and post test knowledge scores of nursing students regarding BSE.

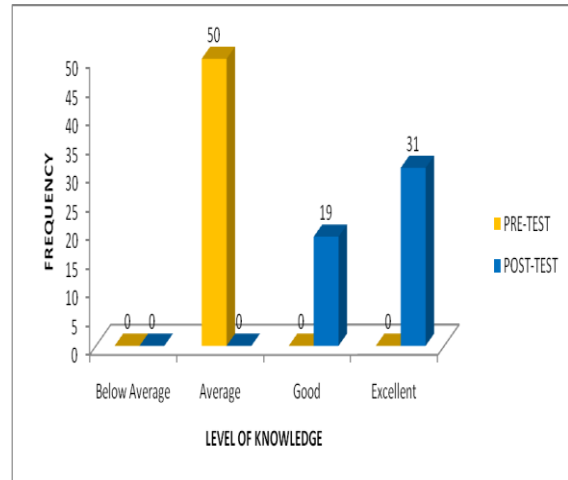


Figure 3: Bar diagram showing pre-test and post-test level of knowledge of nursing students regarding BSE.

Hypotheses:

To find out the significance of mean difference in knowledge scores of pre test and post test, the following hypothesis were stated:

H₁: There will be a significant difference in the mean knowledge scores of pretest and post test after administration of planned teaching program regarding breast self examination at 0.05 level of significance.

The following null hypotheses were used to test the research hypotheses:

H₀: There will be no significant difference in the mean scores of pretest and post test after administering the planned teaching program regarding breast self examination at 0.05 level of significance.

Table 1: Mean score, median, standard deviation of pre test and post test and “t” value of knowledge score on structured knowledge questionnaire N=50

Knowledge Test	MEAN	MEDIAN	S.D	“t” value
Pre-test	15.66	16	1.99602	-43.572*
Post-test	30.98	31	2.02525	

*t (49) > 1.645 - 0.05

*Significant at 0.05 level

The data presented in Table 1 shows that “t” value was significant at 0.05 level of significance.

The computed “t” value i.e. “t” = -43.572 was higher, thus indicating that the

mean post test knowledge score after administration of PTP was higher than the mean pre test knowledge score of students. Thus, it is established that the difference obtained in the mean scores was a true difference and not by chance. Hence, Null hypothesis H_{01} was rejected and the research hypothesis H_1 was accepted indicating that PTP was effective in improving knowledge of the students.

Description of the association of knowledge of nursing students regarding B.S.E. with selected demographic variables:

H₂: There will be a significant association of knowledge with selected demographic variables at 0.05 level of significance.

H₀₂: There will be no significant association of knowledge with selected demographic variables at 0.05 level of significance.

Chi-square was computed to find out the association of level of knowledge with selected demographic variables and the computed chi-square values were found to be non-significant at 0.05 level of significance. Hence it can be inferred that knowledge of students regarding BSE was independent of selected demographic variables.

DISCUSSION

The findings of the present study indicated that majority (62%) of the students were in the age group of 18-19 years, (6%) of 20 years, (14%) of the age of 22 years, (14%) of the age of 23 years, (4%) of the age of 24 years. All the students (100%) were unmarried. Contrary to these findings, the results of the study conducted by Alka Chauhan et.al. stated that majority (80%) of the subjects were between 15 to 30 years. Majority (77.5%) of the subjects were married. [10]

The findings also revealed that mean post test knowledge score after administration of PTP was higher than the mean pre test knowledge score of students. Similar result was revealed in study conducted by Maha Mousa Mohamed Moussa and Nagat Salah Shalaby which showed very low students' knowledge, attitude and practice before the intervention, with statistically significant improvements after the implementation of educational training program. Another study conducted by Shalini, Divya Varghese, and Malathi Nayak also revealed that the awareness program on BSE was very effective and there was gain in knowledge scores after administration of PTP. [11, 12]

Retention of knowledge was not assessed in the present study. A follow up study of planned teaching program could be carried out to find out the effectiveness on terms of retention of knowledge. An experimental study to determine the practices on Breast self examination could be incorporated.

CONCLUSION

The findings of the present study indicated that PTP was effective in improving the knowledge of students. The mean post test knowledge score was found to be significantly higher than the mean pre test knowledge score.

Nursing personnel's working in the community should be equipped with adequate knowledge and skill to educate the women on breast self examination, community health nurses should conduct and organize teaching program to community members regarding healthy practices. Nursing administration can contact the women's welfare organizations and can conduct the teaching programs on early detection of breast cancer.

In service education for the staff regarding breast self examination should be

conducted to update their knowledge. There is an extensive need to develop information materials based on women's needs.

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