**A Research Investigating the Efficacy of a Well-Planned Educational Program on Enhancing Knowledge about Breast Self-Examination Among First and Second   
Year GNM Students at SGRD College of Nursing,  
Vallah, Amritsar**

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***Abstract***

*This research employed a quasi-experimental study. GNM first- and second-year students from Sri Guru Ram Das College of Nursing Vallah in Amritsar engaged in the current study (Punjab). The study's objective was to evaluate the impact of a structured teaching strategy on GNM students' breast self-examination. A total of 60 students were selected through the convenience sampling technique. The intervention was given in form of a structured teaching program for a period of 45 minutes. Seven days later post-test was given to determine whether the structured instruction program had been successful. The findings of the study show pre-test knowledge scores were 8.3% that were poor, 68.4% had average knowledge and 23.3% had good knowledge. After giving intervention the post-test knowledge gold was as follows 8.3% of the students had average knowledge 91.7% had good knowledge. The effectiveness was statistically tested using mean and standard deviation. The mean during the pre-test was 13.98, with a corresponding standard deviation 3.377 and in the post-test mean was 22.28 and the standard deviation was 3.125. The main difference was 7.30, the t value was 15.89, df was 59, and the P value was 0.1No correlation was found between knowledge about breast self-examination and the socio-demographic variables they chose. Hence it can be concluded from this study that the structured teaching program can increase the level of knowledge among the students.*

**Keywords:** Breast Self-Examination, Structured Teaching Program, GNM students.

**INTRODUCTION**

Early and prepubescent alterations take place gradually when secondary sexual traits emerge. At age 8, girls may start to develop breast buds. Breast development is complete between the ages of 12 and 18 [1].Breast self-examination is a screening technique used to try and find breast cancer early on. Worldwide, breast cancer is the number one health problem and cause of death for women [2].

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Breast cancer is distinct from other types of cancer in that it affects a visible organ and can be found and treated at an early stage [3]. Mammography, clinical breast exams, and self-examinations of the breast are recommended preventive measures to reduce breast cancer mortality. It's important to inform your doctor if you observe any unusual changes in your breasts or if you perceive differences between one breast and the other [4].

Should you observe any unusual changes in your breast or notice asymmetry between them, it is advisable to inform your doctor. Evidence suggests that women who accurately perform monthly breast self-examinations are more likely to find a lump at an early stage of development. Early identification has been linked to earlier treatment, which improves survival rates. For this reason, medical professional’s advice being familiar with the usual consistency of your breasts to aid in the earliest detection of abnormality [5].

With the onset of puberty, one should begin practising breast self-examination. The best time to do breast self-examination is a few days following the end of your menstrual cycle since hormonal fluctuations can modify the size and tenderness of your breasts, making it better to conduct the examination when they are in a normal state. Women who are not menstruation can schedule the exam for a specific day, such as the first of the month [4].

Breast self examination has five steps. The techniques implemented are Inspection and Palpation. Stand in front of a mirror without a top, and initiate the breast examination with your arms at your sides. Firstly, inspect your breast visually for changes in shape, size or symmetry, dimpling, inverted nipples, etc. Then, use your finger pads massage with varying pressure to detect any abnormality. Lastly, delicately press your nipples to inspect for any discharge.

The knowledge and attitude towards breast done again [6]. According to WHO, among those who practice breast self-examination most of them about 62% (58.5%) reported performing breast self-examination every month. Approximately 27% (25.5%) examined their breast once very six months and about 17 (16%) examined their breasts once every year. It is important to motivate women to regularly carry out Breast self-examinations for an abnormality at earlier times. The biggest cause of cancer-related fatalities in women globally is breast cancer. One should focus on its prevention before the occurrence of the disease and one of the best methods is breast self-examination. So it is important to put our hands together and fight against the hazards of breast cancer in order to get a very healthy present and future generation [7].

This method serves as a screening technique to detect early signs of breast cancer. Breast examination is important in adolescents as it makes them more “Breast Aware” which in turn may lead to an early diagnosis of Breast Cancer [7].

**A total of 262respondents were selected as the sample for this study. Admittedly, 15 respondents (5.72%) did not finish the survey, and 10 respondents (3.81%) declined to participate. 237 female students took part in this study as a result. The study achieved a response rate of 90.45% [8]**

Suspicious lumps or cavities found while performing BRE breast self-examination lead to plethora of diagnoses and successful remedial ailments [9]. Nurses are in a fantastic position to make use of many opportunities to encourage adolescents to be breast aware [10]. Overall, 56.7 percent were aware of breast self-examination, mostly from information media (44.4 percent) and health professionals. A little above half (55.6 percent) practiced breast self– examination and 24 percent could be adjudged to have good practice [11].

# RESEARCH METHODOLOGY

(As described in Figure 1: research methodology)

**Figure 1.** Research methodology.

# Research Approach

Quantitative research approach was used by the researcher.

# Methodology

This study utilized a Descriptive Research design.

# Study Design

This study employed a Descriptive Research design.

# Research Variables

*Independent variables:* Structured Teaching Programme

# Dependent Variables

Knowledge

# Socio-demographic Variables

Age, class, educational status of mother, educational status of father, area of residence, dietary pattern, monthly income of father

# Research Setting

The nursing students at Sri Guru Ram Das College of Nursing in Vallah, Sri Amritsar, were the subjects of the current study. It offers multi-specialty services in the areas of dentistry, medicine, surgery, paediatrics, obstetrics & gynaecology, and psychiatry.

# Target Population

In the present study the target population was GNM first year and second year students in Sri Guru Ram Das College of Nursing, Vallah, Amritsar.

# Sample & Sampling Technique

## Sample

Sample size consists of 60 nursing students.

## Sampling Method

The researcher utilized a non-probability convenience sampling technique

# Criteria for Inclusion and Exclusion"

## Criteria for Inclusion

* Students who express willingness to participate
* Available during data collection
* Enrolled in the first and second year of the GNM program.
* Who are between age group of 17 to 19 years.

## Criteria for Exclusion

* Unwilling to take part in the study
* Unreachable during data collection.

# Method and Tool for Data Collection

Structured questionnaire

# Description of tool

*Part A:* This part includes age, education, area of residence, dietary pattern, and monthly income of parents.

*Part B:* Self-structured knowledge questionnaire regarding breast self-examination

It consists of 24 questions. Each accurate answer received one point, while any incorrect response resulted in a zero mark, as illustrated in Table 1.

**Table 1.** Self-structured knowledge questionnaire scoring measures

|  |  |
| --- | --- |
| **Level of Knowledge** | **Score** |
| Poor Knowledge | 0–8 |
| Average Knowledge | 9–16 |
| Good Knowledge | 17–24 |

# Criterion Measures

*Maximum Scoring:* 24

*Minimum Scoring:* 0

## Ethical Consideration

Members of the SGRD's ethics and research committees provided their consent. Authorization was acquired from the Principal of the College of Nursing, Vallah, Amritsar, subsequent to securing approval from the ethics committee. Students had the freedom to stop study at any moment, without having to present a justification.

## Data Collection Procedure

For the final study written permission was obtained from the principal of SGRD College of Nursing, Vallah, Amritsar. Data was collected at SGRD College of nursing, Amritsar knowledge questionnaire was distributed among GNM first and second year students with sample size of 60. We took pre-test and STP was given the identical day. After one week we took a post-test from the group.

# ANALYSISANDINTERPRETATION

Table 2 The data was collected from the students of GNM belonging to the first and second year as 39 (65%) The educational status of mother and father had attained 6th to 12th standard with 43 (71.6%). Majority of students indwelling to rural area 40 (66.7%). Majority of the students were vegetarians as 80% (48). Majority of students father income were 20 (33.4%) under the 9,961–29,973. Majority of students were well aware about the breast self-examination 51 (85%) whereas those who had not heard about it were 9 (15%). The monthly income of their family revealed that highest percentage 20 (33.4%). Majority of the students were be longed to GNM 2nd year that was 39 (65%).

**Table 2.** Frequency and Percentage Distribution of Demographic Variables.

**N = 60**

|  |  |  |  |
| --- | --- | --- | --- |
| **S.N.** | **Demographic Variables** | **Frequency** | **Percentage** |
| 1 | Age in years |  |  |
| 17 years | 7 | 11.7 |
| 18 years | 24 | 40 |
| 19 years | 29 | 48.3 |
| 2 | Class |  |  |
| GNM I year | 39 | 65 |
| GNMII year | 21 | 35 |
| 3 | Educational status of mother |  |  |
| Illiterate | 0 | 0 |
| 5 th standard | 4 | 6.7 |
| 6–12 standard | 43 | 71.6 |
| Graduate | 13 | 21.7 |
| Post-graduate | 0 | 0 |
| 4 | Educational status of father |  |  |
| Illiterate | 0 | 0 |
| 5th standard | 3 | 5 |
| 6–12 standard | 44 | 73.4 |
| Graduate | 11 | 18.3 |
| Post-graduate | 2 | 3.3 |
| 5 | Area of residence |  |  |
| Urban | 20 | 33.3 |
| Rural | 40 | 66.7 |
| 6 | Dietary pattern |  |  |
| Vegetarian | 48 | 80 |
| Non-vegetarian | 12 | 20 |
| 7 | Monthly income of father |  |  |
| ≥1,99,8962 | 11 | 18.3 |
| 99,931–1,99,861 | 5 | 8.3 |
| 74,755–99,930 | 8 | 13.3 |
| 49,962–74755 | 9 | 15 |
| 29,973–49,961 | 7 | 11.7 |
| 9,961–29,973 | 20 | 33.4 |
| < 29,973 | 0 | 0 |
| 8 | Have you heard about breast self-examination |  |  |
| Yes | 51 | 85 |
| No | 9 | 15 |

**Table 3.** Pre-test and post-test level of knowledge regarding breast self-examination among GNM students.

**N = 60**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Level of knowledge** | **Pre-test** | | **Post-test** | |
| ***f*** | ***%*** | ***F*** | ***%*** |
| Poor knowledge (0–8) | 5 | 8.3 | 0 | 0 |
| Average knowledge (9–16) | 41 | 68.4 | 5 | 8.3 |
| Good knowledge (17–24) | 14 | 23.3 | 55 | 91.7 |

Table 3 Revealed that levels of knowledge in pre-test (68.4%) had average knowledge while 8.3% was marked during post-test. Students were marked good knowledge 14 (23.3%) in pre-test and 55 (91.7%) in post-test respectively. Table 2: GNM Students' Knowledge of Breast Self-Examination Pre-and Post-Test

**Table 4.** Effectiveness of structured teaching program on knowledge regarding breast self-examination among GNM students

**N = 60**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **S.N.** | **Level of Knowledge** | **Mean** | **SD** | **Mean**  **D** | **t**  **value** | **df** | **P**  **value** |
| 1 | Pre-test | 13.98 | 3.377 | 7.30 | 15.89 | 59 | 0.001\* |
| 2 | Post-test | 22.28 | 3.125 |

*\*p<0.05 level of significance*

Table 4Denotes that mean knowledge score (13.98) in pre-test and (22.28)in post-test. However, the analysis revealed that standard deviation pre-test was 3.377 and after Giving the structured teaching programme the post-test knowledge became 3.125 with the mean difference of 7.30

Table 5 Shows that association of post-test with socio –demographic variables was assessed by using Chi-square. At the 0.05 significance level, no correlation was observed between the post-test results and socio-demographic characteristics.

**Table 5.** Association between post-test level of knowledge regarding breast self-examination among GNM students with their demographic variables.

**N = 60**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **S.N.** | **Demographic Variables** | **Post-test knowledge** | | **χ2 valued** |
| ***Average*** | ***Good*** | ***p value*** |
| 1 | Age in years |  |  | 1.260  2  0.533NS |
| 1. 17 years | 0 | 7 |
| 1. 18 years | 3 | 21 |
| 1. 19 years | 2 | 27 |
| 2 | Class |  |  | 1  0.463NS |
| 1. GNM I year | 4 | 35 |
| 1. GNM II year | 1 | 20 |
| 3 | Educational status of mother |  |  | 2.689  2  0.261NS |
| 1. Illiterate | --1 | --3 |
| 1. 5th standard | 4 | 39 |
| 1. 6–12 standard | 0 | 13 |
| 1. Graduate | -- | -- |
| 1. Postgraduate |  |  |
| 4 | Educational status of father |  |  | 3.669  3  0.299NS |
| 1. Illiterate | --1 | --2 |
| 1. 5th standard | 4 | 40 |
| 1. 6–12 standard | 0 | 11 |
| 1. Graduate | 0 | 2 |
| 1. Post-graduate |  |  |
| 5 | Area of residence |  |  | 0.436  1  0.509NS |
| 1. Urban | 1 | 19 |
| 1. Rural | 4 | 36 |
| 6 | Dietary pattern |  |  | 1  0.243NS |
| 1. Vegetarian | 5 | 43 |
| 1. Non vegetarian | 0 | 12 |
| 7 | Monthly income of father |  |  | 4.509  5  0.479NS |
| 1. .≥1,99,8962 | 0 | 11 |
| 1. 99,931–1,99,861 | 1 | 4 |
| 1. 74,755–99,930 | 0 | 8 |
| 1. 49,962–74755 | 1 | 8 |
| 1. 29,973–49,961 | 0 | 7 |
| 1. 9,961–29,973 | 3 | 17 |
| 1. < 29,973 | -- | -- |
| 8 | Have you heard about BSE |  |  | 1  0.744NS |
| 1. Yes | 4 | 47 |
|  |  |  |
| 1. No | 1 | 8 |

*\*p value<0.05 level of significance, NS-Non Significant*

# STUDY RESULTS

# Knowledge of Breast Self-examination Among GNM Students Before and After the Test

It revealed that levels of knowledge in pre-test (68.4%) had average knowledge while 8.3% was marked during post-test. Students were marked good knowledge 14 (23.3%) in pre-test and 55 (91.7%) in post-test respectively.

Table 2 Knowledge of breast self-examination among GNM students pre and post-test.

# Assessment of the Impact of a Structured Teaching Program on Knowledge about Breast Self-Examination Among GNM Students

This indicates the mean knowledge score of (13.98) in pre-test and (22.28) in post-test. However, the analysis revealed that standard deviation pre-test was 3.377 and after giving the structured teaching programme the post-test knowledge became 3.125 with the mean difference of 7.30,

**Correlation Between Post-test Knowledge of Breast Self-examination Among GNM Students and their Demographic Variables**

"Indicates the utilization of Chi-square analysis to assess the link between the post-test and socio-demographic variables. At the 0.05 significance level, no correlation was found between the post-test results and socio-demographic factors

# CONCLUSION

Reduced breast cancer fatalities are mostly due to early identification of the disease. A healthy lifestyle should be practiced from a young age since it can foster a positive attitude toward health. Therefore, school-age girls are a good target for early exposure to information about breast cancer and early detection techniques. Breast self examination is a method of self inspection in which women look at and feel their own breasts with their fingertips to check for any abnormal changes or abnormalities. Women examine their breasts monthly, typically at the conclusion of their menstrual cycle. It is a crucial screening tool for the early diagnosis of breast cancer due to its low cost, wide availability, and lack of need for sophisticated technical training. Moreover, it increases sensitivity and early detection of aberrant alterations. This ensures that women remain informed about any changes detected during breast self-examination. Regular breast self-examination also has the added benefit of empowering women and motivating them to take charge of their own health. Thus, it is advised to increase women's awareness of the value of breast self-examination.

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