Original Research Article

"Effectiveness of Structural Teaching Programme on Knowledge and Practice Regarding Breast Self-Examination among Female Students – A Quasi Experimental Study"

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Abstract: *Background of the study*: Breast cancer is a major public health issue in both developed and developing countries and it is the leading cause of illness and mortality in women. Every year, about 1.15 million new instances of breast cancer are diagnosed worldwide. The high death rate among women owing to breast cancer is exacerbated by late-stage diagnosis. *Aim*: To evaluate the impact of a teaching program on female students' knowledge of breast self-examination. *Methodology*: The quantitative educational and evaluative research approach was deemed the most suitable for this investigation. The research design was "A Quasi Experimental Study to Evaluate the Effectiveness of a Structured Teaching Program on Breast Self-Examination Knowledge and Practice among Female College Students in a Selected College in Panipat." Stratified random sampling was utilized to determine the sample. The data collection instruments were self-administered. Two-part multiple-choice questionnaire, with the first section containing demographic data and the second assessing knowledge of breast self-examination. The data were analyzed and hypotheses tested using descriptive statistics (frequency, percentage, mean, and standard deviation) and inferential statistics (Chi square, paired "t" test). *Results*: At the 0.05 level, a comparison of the pre-test mean of 8.35 and the post-test mean of 24.18 for breast self-examination knowledge was found to be statistically significant. This study demonstrates that an educational program is effective at increasing breast self-examination awareness. *Conclusion*: Overall, the results of this study showed that female students' understanding and practice of BSE were greatly improved because to the structured training program. Therefore, an effective health education campaign should be developed to raise awareness and encourage regular self-breast examination among college-aged women in order to detect breast cancer at an earlier stage.

Keywords: Quasi Experimental Study, Effectiveness, Structured Teaching Program, Breast Self-Examination, Female Students.

INTRODUCTION

A breast self-exam is a check-up that a woman does at home to look for changes or problems in the breast tissue. Many women think it's important for their health to do this. When the breasts are not sore or swollen is the best time to check them yourself. Because many women feel soreness and lumpiness in their breasts before their periods, they should do a self-exam of their breasts after their periods. Many doctors tell women to check their breasts every month, on the day after their period.

Breast cancer is the most frequent cancer among American women and the second leading cause of cancer deaths among American women (Miller and Baines, 2011), despite increased global efforts to limit its prevalence.

Among female cancer patients in Malaysia, breast cancer has the highest incidence rate. Comparatively, only about one in eight women in Europe and the United States face this danger. (MOS, 2012) In our country, that number rises to about one in nineteen. It is the most frequent malignancy among women of all races, accounting for 30.4% of all new cancer diagnoses.

All women above the age of 20 are considered to be at risk for breast cancer and in favor of monthly Breast Self-Examination (BSE) by the Malaysian Clinical Practice Guidelines for the management of breast cancer (Kocic *et al.,* 2011; Lee, 2003). Certain inherited genetic mutations, as well as a personal or family history of breast cancer, are the key risk factors for breast cancer in women. Long menstrual cycles, obesity, recent oral contraceptive usage, postmenopausal hormone therapy, characteristics of some ethnic groups, and daily alcohol use of one drink or more are also associated with increased breast cancer risk (Lee *et al.,* 2004).

Breast cancer is a health problem all over the world, and it is the top cause of death among women everywhere. It is the second most common type of cancer in women in India. It is thought that about 80,000 cases happen each year. Indian women are 22.9 times more likely to get breast cancer than other women their age, and 11.19 times more likely to die from it. At the moment, about 1 in 26 women are likely to get breast cancer at some point in their lives.

Breast self-examination (BSE), clinical breast examination (CBE), and mammography are three of the most effective preventative measures that may be used to lower the risk of death or disability from breast cancer.

While CBE and mammography need a trip to the hospital and access to pricey equipment and trained professionals, BSE only requires a few common household items and may be performed by the woman herself. Benefits of breast self-examination (BSE) include increased familiarity with breast anatomy and texture and earlier detection of breast changes. According to the research, 90% of cases of breast cancer are detected by the patient themselves. Several studies have also indicated that raising women's awareness of breast cancer can help remove obstacles to early diagnosis and treatment.

With this in mind, the purpose of this study was to find out what Indian female dental students know, how they feel about BSE, and what they do about it. So, the researcher thought it was important to set up a "quasi-experimental study" to see how well an organized teaching program helped female college students in Panipat learn about and do self-breast exams.

Statement of the Problem
"A Quasi experimental study to assess the effectiveness of structured teaching programme on knowledge and practice regarding breast self-examination among female students in selected college, Panipat."

OBJECTIVES
1. To assess the pre-test and post-test knowledge and practice regarding breast self-examination among female students in experimental and control group.
2. To evaluate effectiveness of Structured Teaching Programme on knowledge and practice regarding breast self-examination among female students in experimental and control group.
3. To associate between pre-test knowledge and practice regarding breast self-examination among female students with their selected demographic variables in experimental and control group.

METHODOLOGY
Quantitative research methods were chosen for this work. The study used a quasi-experimental research methodology for its research. Setting for research at RPIMS, Karnal, and Ned Nursing College, Panipat. In this study, the group was made up of female nursing students from Panipat's Ved Nursing College. The number of people in the study was 100. Sampling technique was convenient sampling method. The data collection tool has two parts. Part A is a set of sociodemographic variables, and Part B is a structured knowledge evaluation with 30 questions about how well female students know how to check their own breasts. The knowledge regarding breast self-examination is covered by the questionnaire. The most you could get was 30, and the least you could get was 0. Each right answer is worth 1 point, and each bad answer is worth 0 points. The Test—Retest method was used to measure how well female students knew about breast self-examination and how often they did it. The score for reliability, $r = 0.84$, shows that the tool is very reliable. After getting approval from the director of RPIIT, Karnal, the study was done there over the course of four weeks. In October 2022, the researcher went to the RPIIT college to talk to female students about herself, the data collection process, and why it was being done. The female students collected general information about themselves and their skills by filling out a self-structured questionnaire. The students were then split into two groups: the experimental group and the control group. The methodical organizing and synthesis of research data, as well as the testing of hypotheses using

that data in quantitative studies. The obtained data was correctly organized, and a master data sheet was created. The data was analyzed using inferential and descriptive statistics and the statistical package for social sciences (SPSS) version.

Data Analysis and Interpretations

Table I: Frequency and Percentage Distribution of Subjects According to Socio-Demographic Variables (n = 100)

S. No	Socio-Demographic Variable	Frequency	Percentage
1.	**Age**		
	15 – 20	43	43.00
	21 – 30	41	41.00
	31 and above	16	16.00
2.	**Religion**		
	Hindu	47	47.00
	Christian	22	22.00
	Muslim	26	26.00
3.	**Educational Status**		
	Primary	17	17.00
	HSC	14	14.00
	Graduate	19	19.00
	No Formal Education	34	34.00
4.	**Type of Family**		
	Nuclear	60	60.00
	Joint	40	40.00
5.	**Place of Living**		
	Urban	55	55.00
	Rural	45	45.00
6.	**Marital Status**		
	Married	19	19.00
	Un Married	81	81.00

The data given in Table 1 shows that according to age, majority 43% female students were in the age group of 15-20 years, remaining 41% of them were in the age group of 20-30 years, and 16% of the female students were in the age group of above 30 years. Regarding religion majority 47% of them were Hindu"s, remaining 27% of the female students were Christian and 26% of the female students were Muslim"s. Regarding education of the mother majority 34% of the mothers had noformal education, remaining 25% of the mothers were graduates, 23% of the mothers had primary education and 18% of the mothers completed higher secondary education. Regarding to type of family majority 60% of the female students were in nuclear family remaining 40% of the female students were in joint family. According to place of living majority 55% of them living in urban remaining 45% of them was living in rural. Regarding of marital status majority 81% of the female women were unmarried remaining 19% of the female women were married.
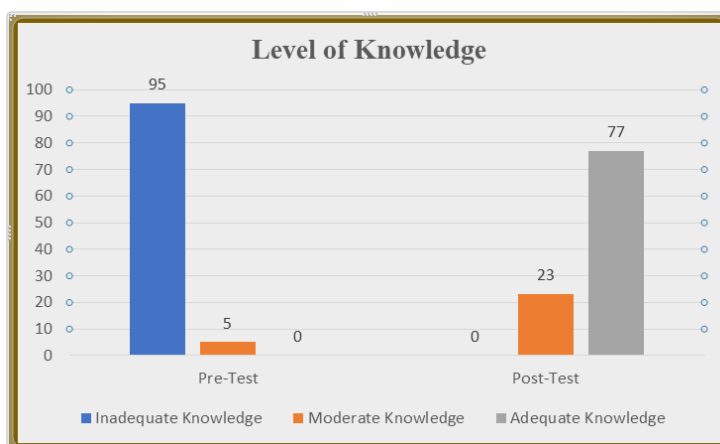

Figure I: Percentage Distribution of Samples According to Level of Knowledge

Figure 2 depicts the frequency and percentage of pre- and post-test knowledge levels about breast self-examination. The majority of female students in the pretest majority 95 of them (95%) had inadequate knowledge, remaining 5 of them (5%) had moderate knowledge, and none had adequate knowledge regarding Breast self-

examination, but in the post-test majority 77 of them (77%) had adequate knowledge, remaining 23 of them (23%) had moderate knowledge, and none had inadequate knowledge regarding Breast self-examination.

Table II: Comparison of Pre-Test and Post-Test of Knowledge Regarding Breast Self-Examination (n = 100)

Group	Test	Mean	Mean Difference	Standard Deviation	Paired 't' test value	p value
Experimental Group	**Pre-Test**	8.35	15.83	2.31	3.99 (df = 99)	0.001
	Post-Test	24.18		2.59		

The data presented in Table II indicates that the group's mean post-test knowledge scores regarding breast self-examination were higher than their mean pre-test knowledge scores regarding breast self-examination. The obtained knowledge Standard deviation considering

The post-test standard deviation for breast self-examination was 2.591, while the pre-test standard deviation was 2.319.

The obtained 't' value for the pre-test and post-test scores of breast self-examination knowledge is *3.9942 when compared to the table value (1.699), which is high and statistically significant at the 0.05 level. So that the teaching program has a significant impact on increasing female students' knowledge of breast self-examination.

Table III: Comparison of Pretest and Post Test Scores of Knowledge Regarding Breast Self-Examination (n = 100)

Components	Mean	S.D	't' Value	Significance
Breast Anatomy Pre-Test	1.66	0.62	4.129	0.001*
Post - Test	3.92	0.66		
Breast Cancer Pre-Test	3.92	0.66	1.674	0.001*
Post-Test	13.9	0.84		
Breast Self-Examination Pre-Test	4.86	1.00	2.317	0.001*
Post-Test	17.42	0.55		

DISCUSSION

Before the test, most female students (95% of them) didn't know enough about breast self-examination. Only 5% of them knew enough, and none of them knew enough. After the test, though, most of them (77%) did know enough. (77%) of them knew enough about self-breast exams to be safe, 23 (23%) knew just enough to be safe, and none of them knew too little to be safe about self-breast exams. Therefore, it is crucial to educate the women on the need of early diagnosis through screening and prompt medical attention.

The group's average post-test score of 24.18 on its knowledge of breast self-examination far above the 8.35 average score of its pre-test. Inferred from the obtained Standard deviation of breast self-examination knowledge The standard deviation for the posttest was 2.591, while it was 2.319 for the pretest. When comparing pre- and post-test scores on knowledge of breast self-examination, the t value of *3.9942 is statistically significant at the 0.05 level when compared to the table value of *1.699. In order for the curriculum to effectively increase female students' familiarity with self-breast assessment.

It has been discovered that interventions aimed at strengthening BSE are effective ways of increasing both theoretical and practical expertise in regards to BSE. Based on the findings of this research, using a variety of teaching strategies, including demonstration, audiovisuals, and lectures, is an efficient way to impart knowledge and skills related to BSE. Karachi leaflet and tape/slide programs in combination were shown to be beneficial in improving understanding about BSE in a community-based interventional trial that was carried out in Pakistan. In addition, the finding of the study that was conducted on medical students in Sudan was in line with the finding of the study that was carried out here. This is due to the utilization of a training module that included lecture and discussion, video presentation, demonstration, clinical instruction on breast models, and the application of IEC materials. As a result, an increase in BSE knowledge was seen.

CONCLUSION

The efficiency of structured training programs was demonstrated by the fact that participants' mean post-test knowledge was greater than their pre-test knowledge in the current study there was a substantial gap in score between the pre-test and the post-test scores on the knowledge section.

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