A Study To Assess The Effectiveness Of Structured Teaching Programme On Knowledge And Attitude Regarding Breast Self-Examination Among Adolescent Girls In A Selected School Of Raipur, Chhattisgarh

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Abstract

Background: Breast cancer is one of the leading causes of cancer-related mortality among women worldwide. Breast self-examination (BSE) is a simple, cost-effective method for early detection. Adolescence is a crucial period to instill healthy practices and positive attitudes toward breast health.

Aim: To assess the effectiveness of a structured teaching programme on knowledge and attitude regarding breast self-examination among adolescent girls.

Methodology: A quantitative, pre-experimental one-group pretest–posttest research design was adopted. The study was conducted among **100 adolescent girls** studying in a selected school of Raipur, Chhattisgarh. Samples were selected using **convenience sampling technique**. Data were collected using a structured knowledge questionnaire and a Likert attitude scale. The structured teaching programme was administered, and post-test was conducted after seven days.

Results: The mean post-test knowledge and attitude scores were significantly higher than pre-test scores. The calculated paired t value was statistically significant at **$p < 0.05$**, indicating the effectiveness of the structured teaching programme.

Conclusion: The structured teaching programme was effective in improving knowledge and attitude regarding breast self-examination among adolescent girls. Early educational interventions can promote lifelong breast health awareness.

Keywords: Breast self-examination, Structured teaching programme, Knowledge, Attitude, Adolescent girls

Introduction

Breast cancer is one of the most prevalent malignancies affecting women worldwide and remains a significant public health concern due to its rising incidence and associated morbidity and mortality. According to global cancer statistics, breast cancer accounts for a substantial proportion of cancer-related deaths among women, particularly in low- and middle-income countries where access to early diagnostic facilities is limited. Early detection of breast cancer plays a crucial role in improving treatment outcomes, survival rates, and quality of life. Therefore, preventive strategies and early screening practices are essential components of breast cancer control programs.

Breast self-examination (BSE) is a simple, cost-effective, and non-invasive method of early detection that enables women to become familiar with the normal appearance and feel of their breasts. Regular practice of BSE facilitates early identification of breast changes such as lumps, skin alterations, or nipple discharge, which may prompt timely medical consultation. Although BSE does not replace clinical breast examination or mammography, it serves as an important self-care practice, particularly in resource-constrained settings where advanced screening facilities may not be readily available.

Adolescence is a critical developmental phase characterized by rapid physical, psychological, and emotional changes. Despite being an ideal period for establishing lifelong health behaviors, adolescent girls often demonstrate inadequate knowledge and unfavorable attitudes regarding breast health and breast self-examination. Cultural taboos, embarrassment, misconceptions, fear, and lack of open discussion about reproductive health issues contribute significantly to poor awareness and negative perceptions. Furthermore, limited exposure to structured health education programmes in schools further restricts adolescents' understanding of preventive practices related to breast health.

Structured teaching programmes implemented during adolescence can effectively bridge this knowledge gap by providing accurate information, dispelling myths, and fostering a positive attitude toward breast self-examination. Such educational interventions empower adolescent girls with essential knowledge and skills, promoting self-awareness and responsibility for their own health. Early education on BSE can also lead to sustained preventive behaviors in adulthood, thereby contributing to long-term breast cancer prevention and early detection.

Nurses play a pivotal role in health promotion, disease prevention, and health education across all levels of care. As frontline healthcare providers, nurses are uniquely positioned to design, implement, and evaluate structured teaching programmes tailored to the needs of adolescents. Educational interventions delivered by nursing professionals have been shown to significantly enhance knowledge, modify attitudes, and improve preventive health practices. Therefore, assessing the effectiveness of a structured teaching programme on knowledge and attitude regarding breast self-examination among adolescent girls is essential to support evidence-based nursing practice and strengthen school-based health education initiatives.

Objectives of the Study

1. To assess the pre-test knowledge and attitude regarding breast self-examination among adolescent girls
2. To assess the post-test knowledge and attitude regarding breast self-examination among adolescent girls
3. To evaluate the effectiveness of the structured teaching programme on knowledge and attitude
4. To find the association between pre-test knowledge and attitude scores with selected demographic variables

Hypotheses

- **H₁:** There will be a significant difference between pre-test and post-test knowledge scores regarding breast self-examination among adolescent girls.
- **H₂:** There will be a significant difference between pre-test and post-test attitude scores regarding breast self-examination among adolescent girls.

Methodology

Research Design

A **pre-experimental one-group pretest–posttest research design** was adopted for the present study. This design was considered appropriate to evaluate the effectiveness of a structured teaching programme by comparing the knowledge and attitude levels of adolescent girls before and after the intervention.

Research Approach

A **quantitative research approach** was used to systematically measure changes in knowledge and attitude regarding breast self-examination among adolescent girls.

Setting of the Study

The study was conducted in a **selected school of Raipur, Chhattisgarh**, chosen based on feasibility, accessibility, and availability of the study participants.

Population

The target population consisted of **adolescent girls studying in the selected school of Raipur, Chhattisgarh**.

Sample Size

A total of **100 adolescent girls** were included in the study.

Sampling Technique

Convenience sampling technique was employed to select the study participants who met the inclusion criteria.

Inclusion Criteria

The study included adolescent girls who:

- Were aged between **13 and 19 years**
- Were **willing to participate** in the study
- Were **available at the time of data collection**

Exclusion Criteria

Adolescent girls who:

- Had **prior formal training or education on breast self-examination**
- Were **absent during the period of data collection**

were excluded from the study.

Tools for Data Collection

Data were collected using the following instruments:

1. **Socio-demographic data sheet:**
   To collect information regarding age, class, religion, family type, source of health information, and previous awareness about breast self-examination.
2. **Structured knowledge questionnaire on breast self-examination:**
   A structured questionnaire developed by the investigator to assess knowledge regarding anatomy of the breast, meaning, importance, steps, and timing of breast self-examination.
3. **Five-point Likert attitude scale:**
   Used to assess the attitude of adolescent girls toward breast self-examination, ranging from strongly agree to strongly disagree.

Intervention

A **structured teaching programme** was developed and administered by the investigator. The programme included the following components:

- Anatomy and physiology of the breast
- Meaning and importance of breast self-examination
- Correct steps and appropriate timing of breast self-examination
- Common myths and misconceptions related to breast self-examination

The teaching session was conducted using lecture-cum-discussion and visual aids.

Data Collection Procedure

After obtaining permission from the school authorities and informed consent from the participants, a pretest was conducted using the structured knowledge questionnaire and attitude scale. The structured teaching programme was then administered. A posttest was conducted after a stipulated period using the same tools to assess the effectiveness of the intervention.

Plan for Data Analysis

Data were analyzed using both **descriptive and inferential statistics**:

- **Descriptive statistics:** Frequency, percentage, mean, and standard deviation were used to describe demographic variables and pre-test and post-test scores.
- **Inferential statistics:**
  - **Paired *t* test** was used to assess the effectiveness of the structured teaching programme.
  - **Chi-square test** was used to determine the association between pre-test knowledge and attitude scores and selected demographic variables.

Results

RESULTS AND DATA ANALYSIS

This chapter deals with the analysis and interpretation of data collected from **100 adolescent girls** to assess the effectiveness of the structured teaching programme on knowledge and attitude regarding breast self-examination (BSE).
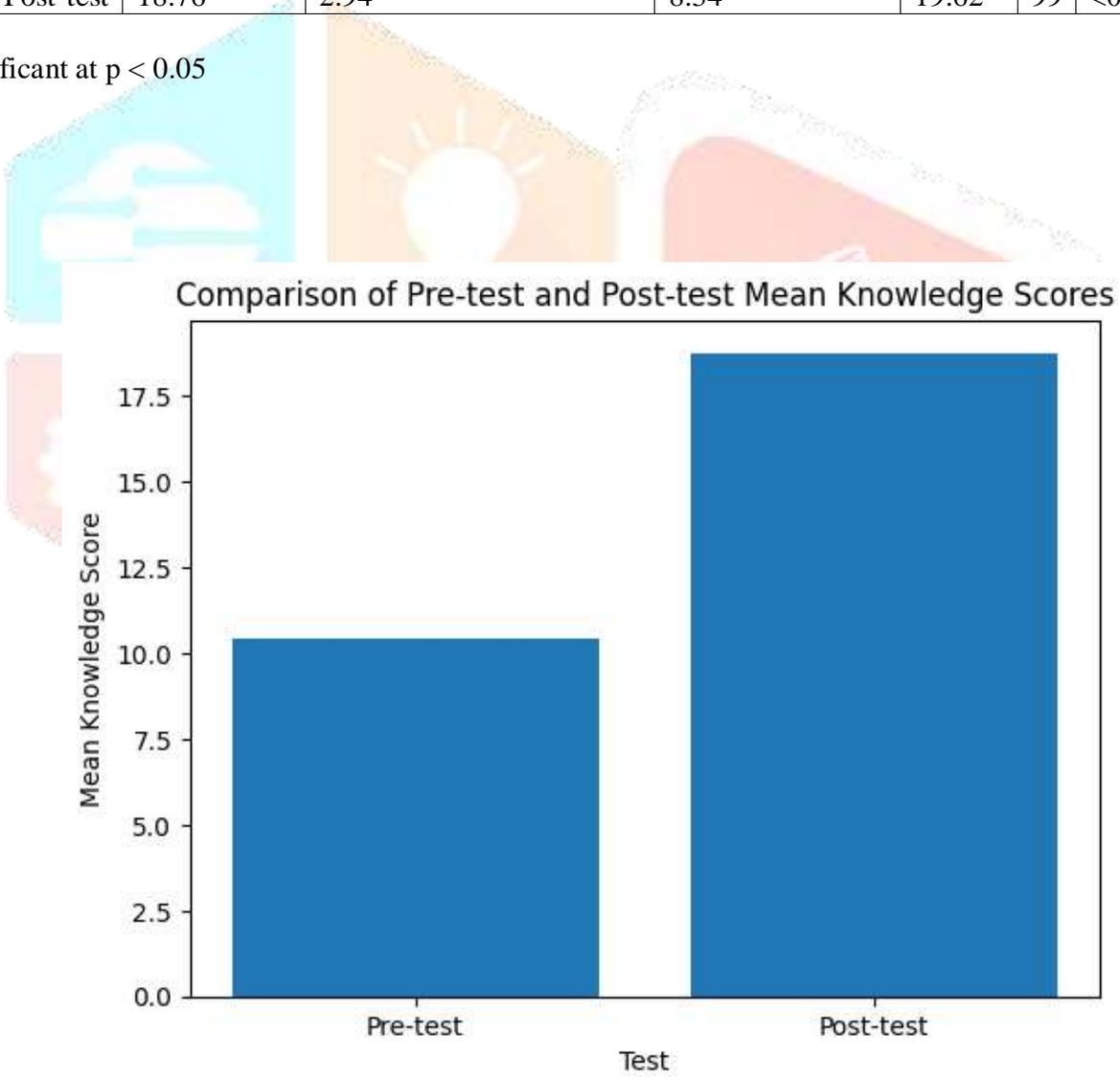
Section I: Analysis of Knowledge Scores Regarding Breast Self-Examination

**Table 1

Comparison of Pre-test and Post-test Mean Knowledge Scores (n = 100)**

Test	Mean Score	Standard Deviation (SD)	Mean Difference	t-value	df	p-value
Pre-test	10.42	3.18				
Post-test	18.76	2.94	8.34	19.62	99	<0.05*

*Significant at p < 0.05

Comparison of Pre-test and Post-test Mean Knowledge Scores

Interpretation

The mean post-test knowledge score (18.76 ± 2.94) was significantly higher than the mean pre-test score (10.42 ± 3.18). The calculated paired *t* value (19.62) was greater than the table value at 0.05 level of significance, indicating that the structured teaching programme was effective in improving knowledge regarding breast self-examination.
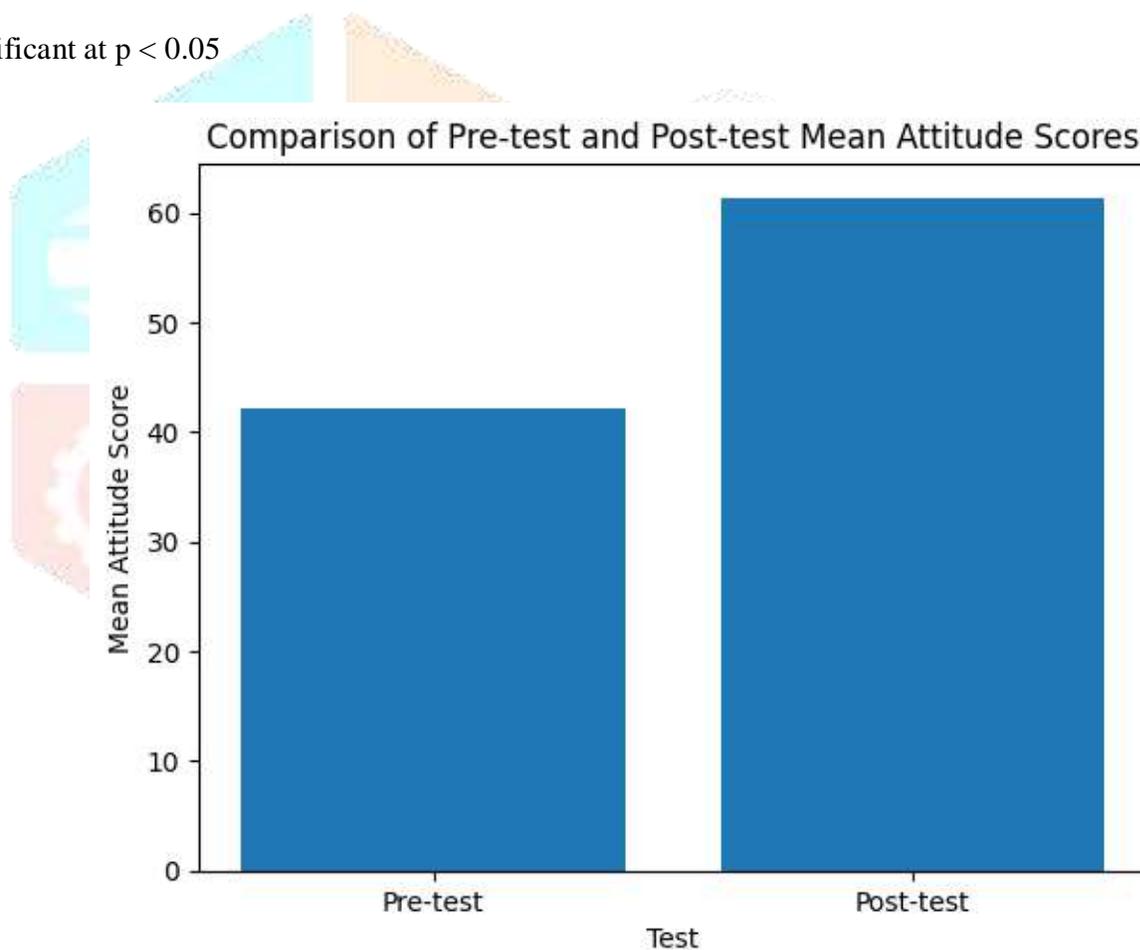
Section II: Analysis of Attitude Scores Regarding Breast Self-Examination

**Table 2

Comparison of Pre-test and Post-test Mean Attitude Scores (n = 100)**

Test	Mean Score	Standard Deviation (SD)	Mean Difference	t-value	df	p-value
Pre-test	42.15	6.84				
Post-test	61.38	5.72	19.23	22.47	99	<0.05*

*Significant at p < 0.05

Comparison of Pre-test and Post-test Mean Attitude Scores

Interpretation

The mean post-test attitude score (61.38 ± 5.72) showed a marked improvement compared to the pre-test score (42.15 ± 6.84). The paired *t* value of 22.47 was statistically significant at p < 0.05, demonstrating a significant improvement in attitude toward breast self-examination after the structured teaching programme.
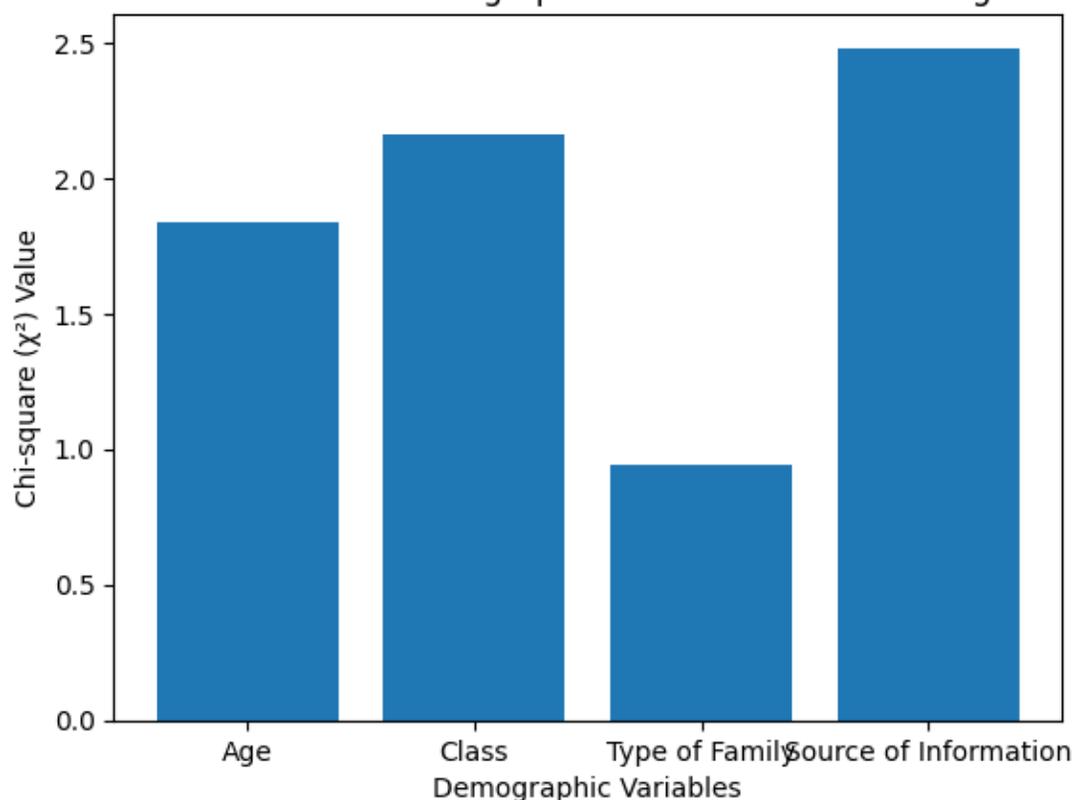
Section III: Association Between Knowledge Scores and Demographic Variables

**Table 3

Association Between Pre-test Knowledge Scores and Selected Demographic Variables (n = 100)**

Demographic Variable	χ^2 Value	df	p-value	Significance
Age	1.84	2	>0.05	Not Significant
Class	2.16	2	>0.05	Not Significant
Type of Family	0.94	1	>0.05	Not Significant
Source of Information	2.48	2	>0.05	Not Significant

Association Between Demographic Variables and Knowledge Scores

Interpretation

No statistically significant association was found between pre-test knowledge scores and selected demographic variables, indicating that baseline knowledge regarding breast self-examination was uniformly low among participants.

Graphical Representation (Bar Diagram Explanation)

Figure 1: Bar Diagram Showing Comparison of Pre-test and Post-test Knowledge Scores

The bar diagram illustrates a substantial increase in mean knowledge scores from pre-test to post-test. This visual representation clearly demonstrates the effectiveness of the structured teaching programme in enhancing knowledge regarding breast self-examination.

Figure 2: Bar Diagram Showing Comparison of Pre-test and Post-test Attitude Scores

The bar diagram depicting attitude scores shows a marked improvement in post-test values, indicating a positive shift in perception and attitude toward breast self-examination following the educational intervention.

The present study aimed to assess the effectiveness of a structured teaching programme on knowledge and attitude regarding breast self-examination among adolescent girls in a selected school of Raipur, Chhattisgarh.

The findings revealed that the majority of adolescent girls had **inadequate knowledge and unfavorable attitude** toward breast self-examination in the pre-test. This may be attributed to cultural taboos, lack of open discussion regarding breast health, and insufficient inclusion of reproductive health education in school curricula.

Following the structured teaching programme, a **statistically significant improvement** was observed in both knowledge and attitude scores. The improvement in knowledge reflects the effectiveness of systematic, nurse-led educational interventions in providing accurate information and clarifying misconceptions related to breast self-examination.

These findings are consistent with a study conducted by **Gupta and Sharma (2021)**, which reported a significant increase in knowledge and attitude scores among adolescent girls after a planned teaching programme on breast self-examination. Similarly, a study by **Kumar et al. (2020)** demonstrated that structured educational interventions significantly improved awareness and positive attitudes toward BSE among school-going adolescents.

The absence of a significant association between demographic variables and post-test scores suggests that the structured teaching programme was equally effective across different age groups, classes, and family backgrounds. This supports the notion that well-designed educational programmes can transcend demographic differences.

The results highlight the critical role of **nurses as health educators** in school settings. Nurse-led structured teaching programmes can serve as an effective strategy for promoting preventive health behaviors and empowering adolescents to take responsibility for their own health.

Discussion

The findings of the study indicate that the structured teaching programme was highly effective in enhancing knowledge and attitude regarding breast self-examination among adolescent girls. These results are consistent with previous studies that reported improved awareness and perception following educational interventions.

Early health education during adolescence can lead to long-term adoption of preventive behaviors. The study highlights the importance of incorporating breast health education into school health programmes.

Conclusion

The structured teaching programme significantly improved knowledge and attitude regarding breast self-examination among adolescent girls. School-based educational interventions are recommended to promote breast health awareness and early detection practices.

Recommendations

- Replication of the study with a larger sample
- Comparative studies between rural and urban schools
- Inclusion of BSE education in school curriculum
- Periodic reinforcement programmes by nursing professionals

Ethical Considerations

- Permission obtained from school authorities
- Informed consent obtained from participants
- Confidentiality and anonymity maintained

Acknowledgement

References (Sample – APA 7th Edition)

1. World Health Organization. (2023). *Breast cancer: Early detection and prevention*.
2. Gupta, S., & Sharma, R. (2021). Effectiveness of educational interventions on breast self-examination. *International Journal of Nursing Research, 7*(2), 45–50.
3. Park, K. (2023). *Preventive and social medicine* (27th ed.). Bhanot Publishers.