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"A STUDY TO EVALUATE THE EFFECTIVENESS OF STRUCTURED TEACHING PROGRAM REGARDING BREAST SELF EXAMINATION IN TERMS OF KNOWLEDGE AMONG WORKING WOMEN FROM SELECTED OCCUPATIONAL AREAS OF AHMEDABAD."

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ABSTRACT :

BACKGROUND: Breast cancer is a major health problem among women. Lack of awareness about Breast Self-Examination (BSE) leads to delayed detection. BSE is a simple and low-cost method for early identification of breast abnormalities.

OBJECTIVE: To evaluate the effectiveness of a structured teaching programme on knowledge regarding Breast Self-Examination among working women in selected occupational areas of Ahmedabad.

METHODOLOGY: A quantitative research approach with a one-group pre-test and post-test design was used. Sixty working women were selected through non-probability convenience sampling. Data were collected using a structured knowledge questionnaire.

RESULTS: The post-test knowledge score was higher than the pre-test score with a mean difference of 7.4. The calculated t-value (14.35) was greater than the table value (2.00) at 0.05 level of significance. A significant association was also found with place of residence and educational qualification.

CONCLUSION: The structured teaching programme was effective in improving knowledge regarding Breast Self-Examination among working women.

KEYWORDS: Breast Self-Examination, Breast Cancer Awareness, Structured Teaching Programme, Working Women, Knowledge.

I. INTRODUCTION

Breast cancer remains a significant health concern for women, particularly in urban areas where lifestyle changes and delayed health-seeking behaviors increase risk. Early detection is crucial for improving survival, and Breast Self-Examination (BSE) is a simple, accessible method that helps women recognize changes in their breast tissue. Despite its importance, many women lack adequate knowledge about proper BSE techniques due to cultural taboos, fear of diagnosis, and limited health education, which can delay early detection.

In cities like Ahmedabad, working women face unique challenges balancing professional responsibilities with personal health. Even educated women may overlook preventive practices such as BSE due to time constraints, misconceptions, or low awareness. Structured teaching programs provide an effective solution by offering organized, interactive, and culturally sensitive education that can increase knowledge, build confidence, and encourage regular practice of BSE.

This study focuses on assessing the effectiveness of a structured teaching program in improving knowledge of BSE among working women in selected occupational areas of Ahmedabad. By comparing pre-test and post-test knowledge scores and analyzing associations with demographic factors, the research aims to demonstrate how targeted education can enhance awareness, empower women to monitor their own health, and promote early detection of breast abnormalities.

OBJECTIVES OF STUDY:

1. To assess the level of pre-test knowledge score regarding Breast Self-Examination in terms of knowledge among working women from selected occupational areas of Ahmedabad.
2. To assess the level of post-test knowledge score regarding Breast Self-Examination in terms of knowledge among working women from selected occupational areas of Ahmedabad.
3. To evaluate the effectiveness of structured teaching program by comparing pre-test and post-test knowledge score after administration of structured teaching program regarding Breast Self-Examination in terms of knowledge among working women from selected occupational areas of Ahmedabad.
4. To find out the association between selected demographic variables with pre-test knowledge score regarding Breast Self-Examination in terms of knowledge among working women from selected occupational areas of Ahmedabad.

HYPOTHESIS:

H_0- There will be no significant difference in post-test level of knowledge after administration of structured teaching program regarding Breast Self-Examination in terms of knowledge among working women from selected occupational areas of Ahmedabad.

H_1- There will be significant difference in post-test level of knowledge after administration of structured teaching program regarding Breast Self-Examination in terms of knowledge among working women from selected occupational areas of Ahmedabad.

H_2- There will be a significant association between selected demographic variables with pre-test knowledge score regarding Breast Self-Examination among working women from selected occupational areas of Ahmedabad.

II. REVIEW OF LITERATURE

Breast cancer is a major public health concern worldwide, and Breast Self-Examination (BSE) is recognized as a simple, cost-effective method for early detection. Several national and international studies have assessed knowledge, attitude and practice regarding BSE among different populations.

Various cross-sectional surveys indicate that although awareness about BSE is relatively high, regular practice remains low. Studies conducted in India, Africa, Turkey, Syria and other countries report that more than half of women have heard about BSE, yet only a small percentage practice it monthly. Research by Baburajan et al. (2022) and Patel et al. (2018) revealed poor knowledge and inadequate regular practice among adult women. Similar findings were reported by Mohammed Alshafie et al. (2024), where fear and lack of confidence influenced BSE practice despite awareness.

Several interventional studies have demonstrated that structured teaching programs significantly improve knowledge and attitude toward BSE. Quasi-experimental studies conducted in Gujarat, Karnataka, Tamil Nadu and Maharashtra showed a statistically significant increase in post-test knowledge scores following educational interventions. Gethcia and Uma (2024) reported a significant improvement in mean knowledge scores after a planned teaching programme. Gadpande et al. (2023) and Thakur and Thakur (2023) also confirmed the effectiveness of structured teaching interventions in enhancing awareness and positive health behavior.

Studies focusing on knowledge, attitude and practice (KAP) indicate that educational level, perceived benefits, self-efficacy and motivation significantly influence BSE practice. Research conducted in Ethiopia, Jordan, Iran and Nepal emphasized that lack of proper training and sociocultural barriers contribute to poor screening behavior.

Overall, the reviewed literature consistently indicates a gap between awareness and regular practice of Breast Self-Examination. Although educational interventions have proven effective in improving knowledge, consistent implementation of structured teaching programs among working women in occupational settings remains limited. Therefore, the present study aims to evaluate the effectiveness of a Structured Teaching Program regarding Breast Self-Examination in terms of knowledge among working women from selected occupational areas of Ahmedabad.

III. RESEARCH METHODOLOGY

A quantitative research approach was adopted to evaluate the effectiveness of a Structured Teaching Program (STP) regarding Breast Self-Examination (BSE) in terms of knowledge among working women from selected occupational areas of Ahmedabad. The study utilized a pre-experimental one-group pre-test post-test research design. The independent variable was the Structured Teaching Program, while the dependent variable was knowledge regarding Breast Self-Examination.

The study was conducted in selected occupational areas of Ahmedabad. The target population comprised working women employed in occupational settings, and the accessible population included those who were available and willing to participate during the data collection period. A total of 60 working women were selected using a non-probability convenient sampling technique. Inclusion criteria included working women who could read and write in English or Gujarati and were available at the time of data collection.

Data were collected using a self-structured knowledge questionnaire consisting of 30 multiple-choice questions, with a maximum score of 30. Content validity of the tool was established by five nursing experts, and reliability was determined using the test-retest method (r = 0.84), indicating good reliability. A pilot study was conducted to assess feasibility and clarity of the tool.
The pre-test was administered, followed by the Structured Teaching Program using lecture-cum-discussion and audiovisual aids. A post-test was conducted after seven days to evaluate knowledge gain. Data were analyzed using descriptive statistics (frequency, percentage, mean, standard deviation) and inferential statistics (paired t-test and Fisher's chi-square test).

IV. Results and Analysis

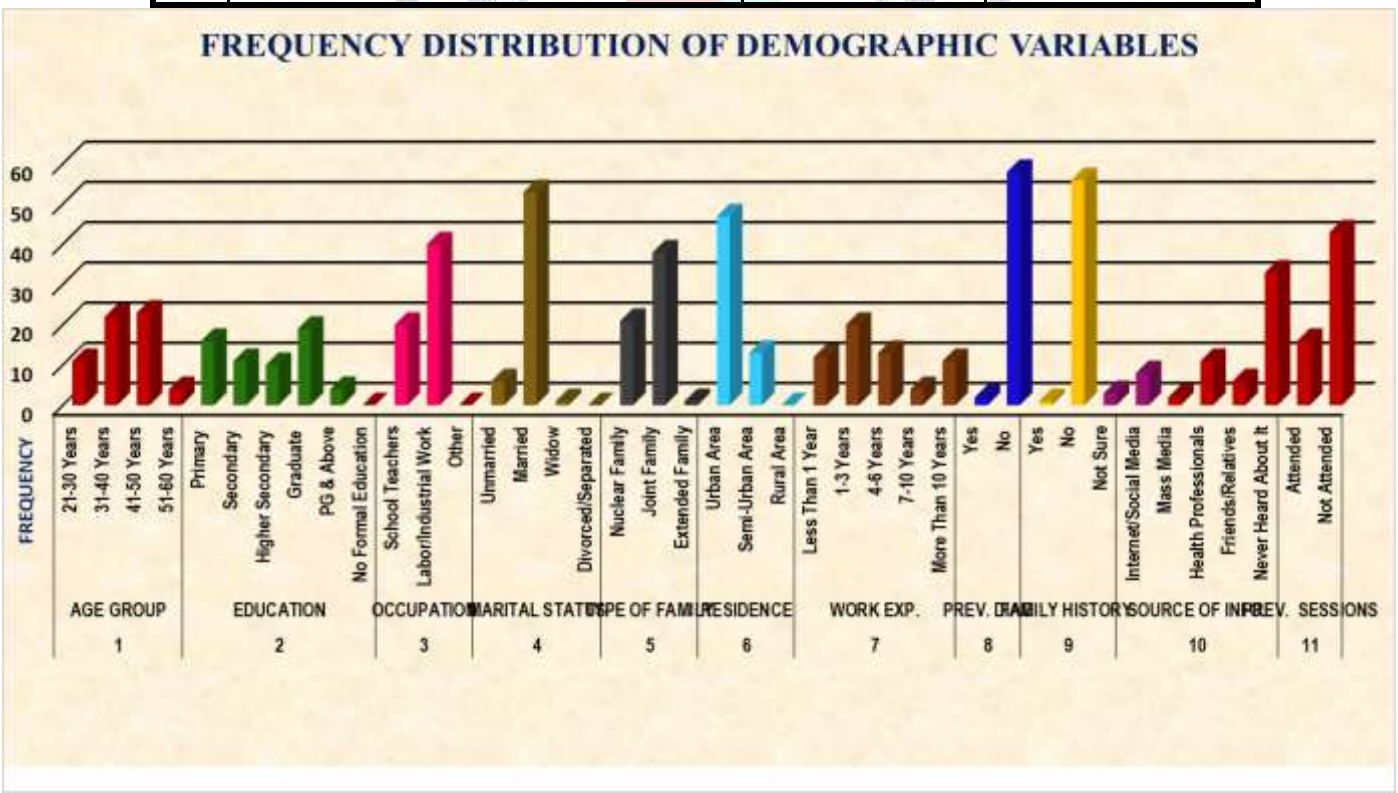
The data collected from 60 working women were analyzed using descriptive and inferential statistics to evaluate the effectiveness of the Structured Teaching Program (STP) on knowledge regarding Breast Self-Examination (BSE).

4.1 Demographic Characteristics

Majority of participants 23 (38.33%) were in the age group of 41–50 years. Most of them were graduates 19 (31.67%) and engaged in labor/industrial work 40 (66.67%). A large proportion 53 (88.33%) were married and 38 (63.33%) belonged to joint families. Most participants 47 (78.33%) resided in urban areas. Majority 58 (96.67%) had no previous diagnosis of breast disease and 56 (93.33%) reported no family history. More than half 33 (55%) had never heard about BSE, and 43 (71.67%) had not attended any previous awareness program.

SR. NO.	DEMOGRAPHIC VARIABLES	FREQUENCY	PERCENTAGE
1	**AGE GROUP**		
	21-30 Years	11	18.33
	31-40 Years	22	36.67
	41-50 Years	23	38.33
	51-60 Years	4	6.67
2	**EDUCATIONAL QUALIFICATION**		
	Primary (1-8 Standard)	16	26.67
	Secondary (9-10 Standard	11	18.33
	Higher Secondary (11-12 Standard)	10	16.67
	Graduate (Degree)	19	31.67
	Post Graduate and Above	4	6.67
	No Formal Education/Schooling	0	0.00
3	**OCCUPATION**		
	School Teachers	20	33.33
	Labor/Industrial Work	40	66.67
	Other	0	0.00
4	**MARITAL STATUS**		
	Unmarried	6	10.00
	Married	53	88.33
	Widow	1	1.67
	Divorced/Separated	0	0.00
5	**TYPE OF FAMILY**		
	Nuclear Family	21	35.00
	Joint Family	38	63.33
	Extended Family	1	1.67
6.	**PLACE OF RESIDENCE**		
	Urban Area	47	78.33
	Semi-Urban Area	13	21.67
	Rural Area	0	0.00

7.	**WORK EXPERIENCE**		
	Less Than 1 Year	12	20.00
	1-3 Years	20	33.33
	4-6 Years	13	21.67
	7-10 Years	4	6.67
	More Than 10 Years	11	18.33
8.	**HAVE YOU EVER BEEN DIAGNOSED WITH BREAST DISEASE?**		
	Yes	2	3.33
	No	58	96.67
9.	**FAMILY HISTORY OF BREAST DISEASE**		
	Yes	1	1.67
	No	56	93.33
	Not Sure	3	5.00
10.	**SOURCE OF INFORMATION REGARDING BREAST SELF EXAMINATION**		
	Internet/Social Media	8	13.33
	Mass Media	2	3.33
	Health Professionals	11	18.33
	Friends/Relatives	6	10.00
	Never Heard About It	33	55.00
11.	**PREVIOUS AWARENESS PROGRAM/SESSIONS ON BREAST SELF-EXAMINATION**		
	Attended	16	26.67
	Not Attended	43	71.67



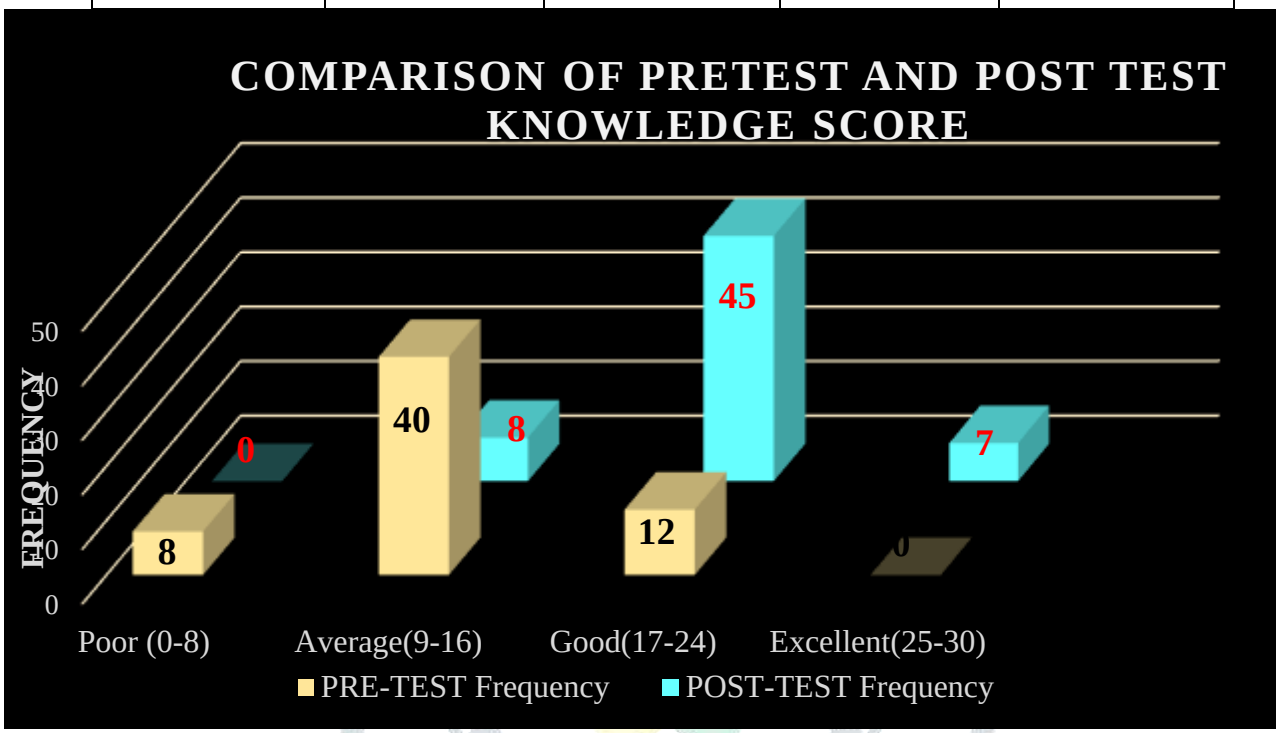
4.2 Comparison of Pre-Test and Post-Test Knowledge Scores

In the pre-test, majority 40 (66.7%) had average knowledge, 12 (20%) had good knowledge and 8 (13.3%) had poor knowledge. After administration of STP, 45 (75%) had good knowledge and 7 (11.7%) had excellent knowledge, while none remained in the poor category.

The mean pre-test knowledge score was 12.63 (SD = 3.96) and the mean post-test score increased to 20.02 (SD = 3.25). The mean difference was 7.38.

The calculated paired 't' value was 14.35, which was greater than the table value (t = 2) at 0.05 level of significance with 59 degrees of freedom. Hence, the difference was statistically significant, indicating that the Structured Teaching Program was effective in improving knowledge regarding BSE.

KNOWLEDGE SCORE	PRE-TEST		POST-TEST	
	Frequency	Percentage	Frequency	Percentage
Poor (0-8)	8	13.3	0	0
Average (9-16)	40	66.7	8	13.3
Good (17-24)	12	20.0	45	75.0
Excellent (25-30)	0	0	7	11.7
Total	60	100.0	60	100.0



4.3 Area-wise Knowledge Gain

Area-wise analysis revealed maximum percentage gain in timing of BSE (43.33%), followed by causes (40%), definition (32.50%) and benefits (31.67%). A slight decline was observed in knowledge related to importance of breast (-5%). Overall mean percentage increased from 42.11% in pre-test to 66.72% in post-test.

SR. NO	ITEM	Score	Pre Test			Post Test			Mean Diff	% Gain
			Mean	SD	Mean %	Mean	SD	Mean %		
1	Causes	1	0.38	0.49	38.33	0.78	0.42	78.33	0.4	40.00
2	Statistical data	1	0.53	0.50	53.33	0.77	0.43	76.67	0.2	23.33
3	Function	1	0.33	0.48	33.33	0.63	0.49	63.33	0.3	30.00
4	Importance of breast	1	0.58	0.50	58.33	0.53	0.50	53.33	-0.1	-5.00
5	Need	1	0.48	0.50	48.33	0.62	0.49	61.67	0.1	13.33
6	Definition	2	0.85	0.68	42.50	1.50	0.57	75.00	0.7	32.50
7	Purpose	2	0.83	0.62	41.67	1.25	0.60	62.50	0.4	20.83
8	Importance	2	0.85	0.71	42.50	1.23	0.70	61.67	0.4	19.17
9	Benefits	2	0.78	0.67	39.17	1.42	0.65	70.83	0.6	31.67
10	Steps	12	5.33	2.35	44.44	8.13	1.51	67.78	2.8	23.33

11	**Timing**	2	0.77	0.79	38.33	1.63	0.58	81.67	0.9	43.33
12	**Barriers**	2	0.60	0.64	30.00	0.93	0.69	46.67	0.3	16.67
13	**Consequences**	1	0.30	0.46	30.00	0.58	0.50	58.33	0.3	28.33
	Total	**30**	**12.63**	**3.96**	**42.11**	**20.02**	**3.25**	**66.72**	**7.4**	**24.61**

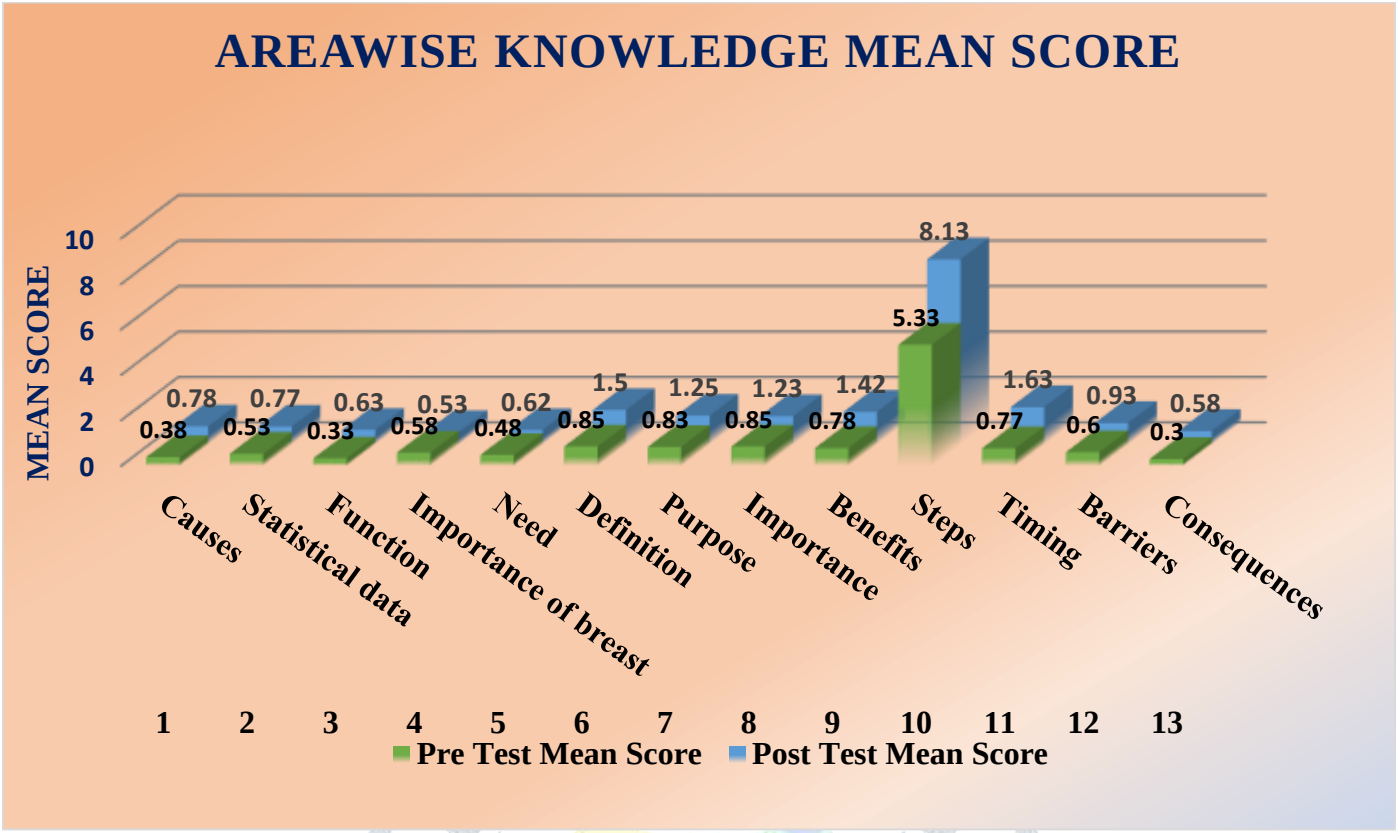
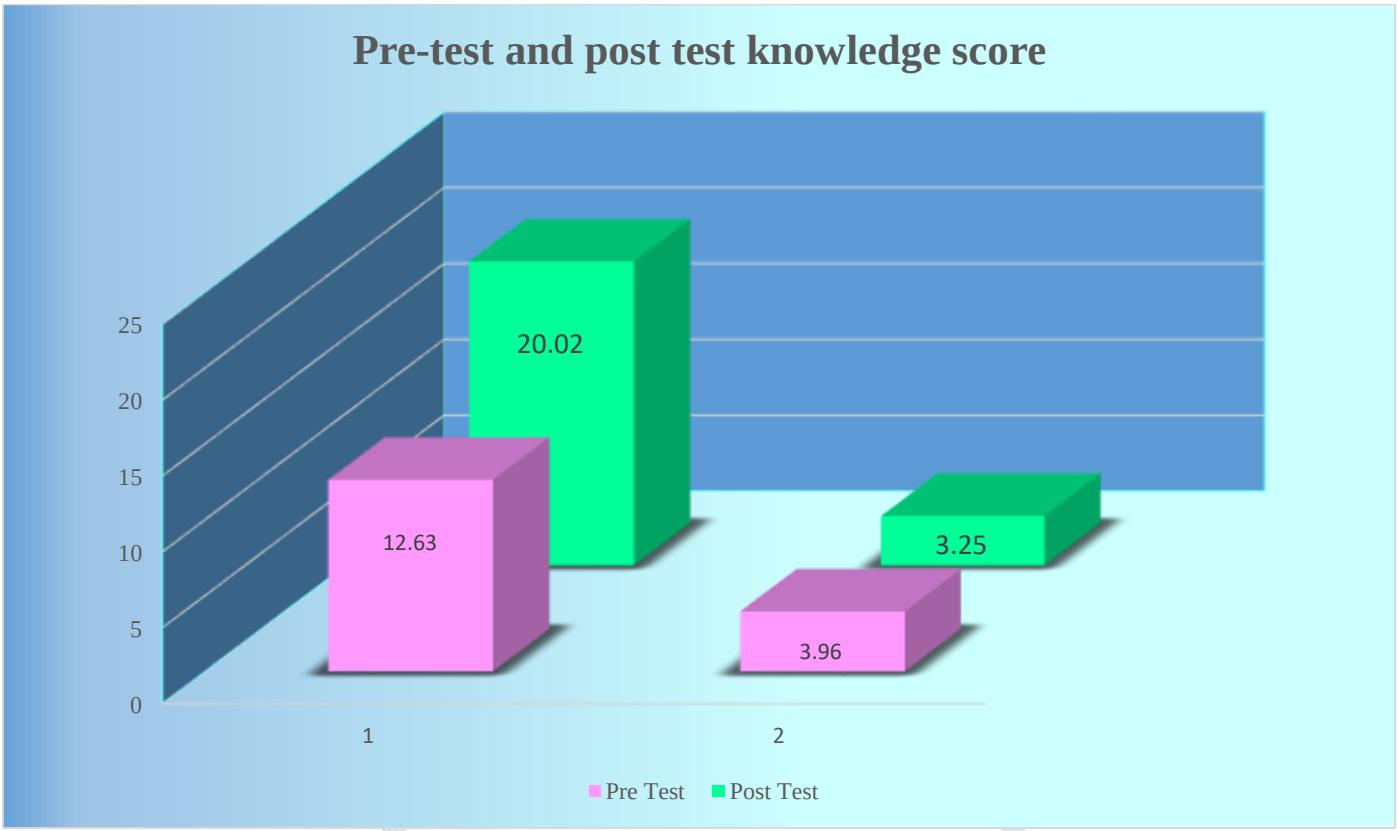


Table 4.4 Mean, Mean Difference, Standard Deviation (SD) and 't' test value of the Pre-test and Post-test Knowledge scores of samples. **[N=60]**

KNOWLEDGE	MEAN	SD	MEAN DIFFERENCE	CALCULATED 'T' VALUE	DF	TABLE VALUE	S/NS
Pre Test	12.63	3.96	7.38	**14.35**	59	2	**S**
Post Test	20.02	3.25					

Table 4.4 shows the comparison of Pre-test and Post-test knowledge scores on Breast Self-Examination. The mean Pre-test score was 12.63, while the mean Post-test score was 20.02, with a mean difference of 7.38. The standard deviation of the Pre-test score was 3.96 and the Post-test score was 3.25.

The calculated t-value (14.35) was higher than the tabulated t-value (2) at 0.05 level of significance with 59 degrees of freedom. Therefore, the null hypothesis was rejected, indicating that the structured teaching programme was effective in improving the knowledge of respondents regarding Breast Self-Examination.



4.5 Association Between Pre-Test Knowledge and Demographic Variables

Chi-square analysis revealed that educational qualification ($\chi^2 = 21.521$, $p < 0.05$) and place of residence ($\chi^2 = 7.119$, $p < 0.05$) had significant association with pre-test knowledge scores. Other variables such as age, occupation, marital status, type of family, work experience, previous diagnosis, family history, source of information and previous awareness program showed no significant association.

SR. NO	DEMOGRAPHIC VARIABLES		PRE TEST SCORE			Total	Chi Square	DF	Table Value	S/ NS
			Average	Good	Poor					
1.	Age Group	21 – 30 Years	7	3	1	11	3.883	6	12.59	NS
		31 – 40 Years	17	3	2	22				
		41 – 50 Years	13	6	4	23				
		51 - 60 Years	3	0	1	4				
2.	Educational Qualification	Primary	12	1	3	16	**21.521**	**8**	**15.507**	**S**
		Secondary	6	2	3	11				
		Higher Secondary	7	2	1	10				
		Graduate (Degree)	15	3	1	19				
		Post-Graduate & Above	0	4	0	4				
3.	Occupation	School teachers	13	5	2	20	0.638	2	5.99	NS
		Labor/Industrial work	27	7	6	40				
4.	Marital Status	Unmarried	4	2	0	6	1.994	4	9.48	NS
		Married	35	10	8	53				
		Widow	1	0	0	1				
5.	Type of Family	Nuclear family	15	4	2	21	1.073	4	9.48	NS
		Joint family	24	8	6	38				
		Extended family	1	0	0	1				
6.	Place of Residence	Urban area	31	12	4	47	**7.119**	**2**	**5.99**	**S**
		Semi-urban area	9	0	4	13				
7.	Work experience	Less than 1 year	10	1	1	12	8.228	8	15.507	NS
		1–3 years	13	3	4	20				

		4–6 years	9	4	0	13				
		7–10 years	3	1	0	4				
		More than 10 years	5	3	3	11				
8.	**Prev. diagnosis of breast disease**	Yes	2	0	0	2	1.034	2	5.99	NS
		No	38	12	8	58				
9.	**Family history of breast disease**	Yes	1	0	0	1	2.143	4	9.48	NS
		No	36	12	8	56				
		Not sure	3	0	0	3				
10.	**Source of information of BSE**	Internet/social media	3	4	1	8	10.208	8	15.507	NS
		Mass media (TV, radio and newspaper)	1	1	0	2				
		Health professionals	9	2	0	11				
		Friends/relatives	5	0	1	6				
		Never heard about it	22	5	6	33				
11	**Previous awareness program/ sessions**	Attended	13	3	0	16	3.622	2	5.99	NS
		Not attended	27	9	8	44				

Conclusion of Analysis

The findings clearly indicate a statistically significant improvement in knowledge scores after the administration of the Structured Teaching Program. Therefore, the null hypothesis (H_0) was rejected and the research hypothesis was accepted, confirming the effectiveness of the intervention.

V. Discussion, Conclusion, Implications and Recommendations

The study evaluated the effectiveness of a Structured Teaching Program (STP) on knowledge regarding Breast Self-Examination (BSE) among working women in Ahmedabad. The findings showed a significant improvement in knowledge after the intervention. The mean pre-test score (12.63) increased to 20.02 in the post-test, and the calculated 't' value (14.35) was statistically significant at 0.05 level.

Educational qualification and place of residence showed significant association with pre-test knowledge, while other demographic variables did not. The findings indicate that structured health education plays an important role in improving awareness and promoting preventive health practices among working women.

Conclusion: The study concluded that a knowledge deficit existed before the intervention. The Structured Teaching Program was effective in significantly improving knowledge regarding Breast Self-Examination among working women. Regular educational programs are essential to promote early detection and breast health awareness.

Implications and Recommendations: The study suggests that nurses should organize regular awareness programs in occupational and community settings. Nursing education should emphasize practical training on BSE. Future research can be conducted with larger samples, experimental designs, and long-term follow-up to assess sustained practice.

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