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A quasi-experimental study to assess the effectiveness of structured teaching programme on prevention of breast cancer among women aged (30-60 years) in selected village of Moga, Punjab

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Abstract
Background: Breast cancer is among the commonest of all human cancers throughout the world. Breast cancer is an uncontrolled growth of breast cells. The peak age for breast cancer is between 40 and 50 years in the Asian countries. There is no single specific cause of breast cancer; rather a combination of hormonal, genetic and possibly environmental events may contribute to its development.
Aim: To assess the effectiveness of Structured Teaching Programme on prevention of breast cancer among women aged (30-60 years).
Objectives: 1. To assess the pre-test knowledge score of women regarding prevention of breast cancer.
2. To assess the post-test knowledge score of women regarding prevention of breast cancer.
3. To compare the pre-test and post-test knowledge score of women regarding prevention of breast cancer.
4. To find out the relationship between knowledge and selected demographical variables.
Methods: Quasi-experimental, one group pre-test post-test design using systematic random sampling technique and sample size was 60. Self- Structured Questionnaire was prepared to assess the knowledge of women regarding prevention of breast cancer.
Results: Study results revealed that in the pre test, majority of women (78.3%) had below average knowledge, followed by 20% of them had average knowledge and 1.7% of them had good knowledge. In Post test, maximum no. of women (58%) had good knowledge, 42% of them had average knowledge and none of them had below average knowledge regarding prevention of breast cancer.
Conclusion: It is concluded that there is a statistically significant difference between pre test and post test knowledge score. Thus, it shows that structured teaching programme was effective in improving the knowledge level of women regarding prevention of breast cancer.

Keywords: structured teaching programme, prevention, breast cancer, women

Introduction

Breast cancer is among the commonest of all human cancers throughout the world. Breast cancer is an uncontrolled growth of breast cells. It affects both males as well as females. But the incidence rate is higher in females. The incidence of breast cancer increases in women as the age increases. There is no single specific cause of breast cancer; rather a combination of hormonal, genetic and possibly environmental events may contribute to its development. Genetic mutations, increased age, null parity, early menarche, late menopause, exposure to ionizing radiations, obesity, family history of breast cancer, hormonal replacement therapy, alcohol intake are some of the risk factors which are associated with the causation of breast cancer [2].

National Cancer Institute (2012) [1]**:** Estimated new cases and deaths from breast cancer in the United States in 2012 are new cases 2, 26870 and deaths 39,510.
The first noticeable symptom of breast cancer is typically a lump that feels different from the rest of the breast tissue. More than 80% of breast cancer cases are discovered when the women feels a lump. The earliest breast cancers are detected by a mammogram. Lumps found in lymph nodes located in the armpits can also indicate breast cancer.

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Indications of breast cancer other than a lump may include thickening different from the other breast tissue, one breast becoming larger or lower, a nipple changing position or shape or becoming inverted, skin puckering or dimpling, a rash on or around a nipple, discharge from nipples, constant pain in part of the breast or armpit, and swelling beneath the armpit [4].

Eat healthy diet that is rich in fruits and vegetables, to take advantage of their antioxidants. Adopting a low-fat diet or a vegetarian diet can help reduce the amount of estrogen in your body. Doing regular exercise helps reduce body fat and improves muscle tone. The American Cancer Society says; "Evidence suggests that one third of the 550,000 cancer deaths that occur in the United States each year are due to unhealthy diet and insufficient physical activity [3]. Limit alcohol intake and stop smoking. Have a regular checkup and communicate often with your doctor to stay well. Screening for breast cancer has the goal of detecting possible tumors before they reach a palpable (easy to feel) size. Have an annual mammogram starting at age 40, as long as your general health is good. Do your breast self-exam (BSE) on a regular basis [5].

Need for the study
International Agency for Research on Cancer (2010)[1] Incidence of the breast cancer is increasing in the developed and developing countries. There were 1.7 million breast cancer cases diagnosed worldwide and 4, 65,000 women died due to breast cancer in 2007. In India the incidence rate are 19.1 per 1, 00000 population and death rate 10.4 per 1, 00000 population.

The Times of India (2012) [3] The crude breast cancer cases in urban Indian women is 25-30 and the age adjusted rate is 30-35 new cases per 1, 00,000 women per year. Breast cancer is increasing - the average increase over a 30 year period in Mumbai was 11 per cent per decade Breast cancer is increasing both in young (11per cent per decade) and old women (16per cent per decade). There are an estimated 1, 00,000- 1, 25,000 new breast cancer cases in India every year. The number of breast cancer cases in India is estimated to double by 2025. The age adjusted incidence of cervix cancer in urban India is 15-20 new cases per 1, 00,000 women per year.

Sandhu K (2012) The Tribune, Chandigarh India in a report stated that Malwa zone is facing the threat of cancer, if one were to go by the reports compiled by Roko Cancer, a United Kingdom based organization which is conducting mammography tests. In the whole Punjab, Roko cancer has organized as many as 700 cancer detection camps and checked about 1, 00000 women, out of which 16,000 tests of mammography have been conducted on women during the past five years. At least, 950 women have been found suffering from breast cancer with another 2000 suspected cases [6].

Statement of the problem
A quasi-experimental study to assess the effectiveness of structured teaching programme on prevention of breast cancer among women aged (30-60 years) in selected village of Moga, Punjab.

Objectives
1. To assess the pre-test knowledge score of women regarding prevention of breast cancer.
2. To assess the post-test knowledge score of women regarding prevention of breast cancer.
3. To compare the pre-test and post-test knowledge score of women regarding prevention of breast cancer.
4. To find out the relationship between knowledge level and selected demographical variables.

Hypothesis
H_1: There will be a significant difference between pre-test and post-test knowledge score of women aged (30-60 years) on prevention of breast cancer.

Delimitations
The study is limited to women who were;
- In the age group of 30-60 years.
- Living in the selected village of Moga, Punjab.
- Willing to participate in this study.

Materials and Methods
Research approach: The quantitative evaluative research approach.

Research design: quasi experimental, one group pre-test post-test design.

Setting: The study was conducted in village Lande Ke, Moga, Punjab.

Sample: Women aged (30-60 years) living in the village Lande Ke, Moga, Punjab.

Sampling technique: Probability systematic random sampling technique.

Sample size: The sample size of the study was 60 women aged 30-60 years.

Criteria for sample selection
Inclusion criteria
- Women of aged 30-60 years:
- Women who were living in the selected village.
- Women who were willing to participate.
- Women who were available during the study.

Exclusion criteria
- Women who were not willing to participate.
- Women who had undergone mastectomy.
- Women who were not available during the study.

Description of the tool
Part-I: Sample characteristics: Age in years, onset of menarche, parity, education of women, education of husband, occupation of women, occupation of husband, family monthly income, religion, dietary habits and source of information.

Part II- A self structured Questionnaire to assess the knowledge of women aged (30-60 years) regarding prevention of breast cancer.
This part consists of multiple choice questions regarding prevention of breast cancer. A total of 30 questions are included and each question has a score of one mark each. Maximum score is 30 and minimum score is 0.

Criterion Measures

Level Of Knowledge	Score	Percentage
Good knowledge	23-30	76-100%
Average knowledge	16-22	51-75%
Below average knowledge	<15	<50%

Results & Discussion

Table 1: Frequency and Percentage distribution of Pre-test and Post-test knowledge score of women regarding prevention of breast cancer. (N=60)

| Level of knowledge	Pre test		Post test	
	n	%	n	%
Good (76 – 100%)	1	1.7	35	58
Average (51 – 75%)	12	20	25	42
Below average (≤ 50%)	47	78.3	-	-
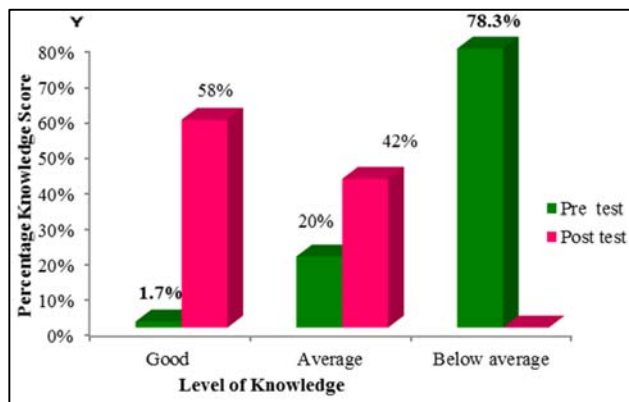
Fig 1: Percentage Distribution of Knowledge score of women aged (30-60 years) regarding prevention of breast cancer

Table 2: Comparison of Mean pre test and post test Knowledge score of women regarding prevention of breast cancer. (N = 60)

Criteria	n	Pre test		Post test			
		Mean	SD	Mean	SD	Df	't'
Knowledge	60	13.20	2.83	21.83	2.87	59	42.23***

Maximum Score = 30
*Significant at p < 0.001 level
Minimum Score = 0
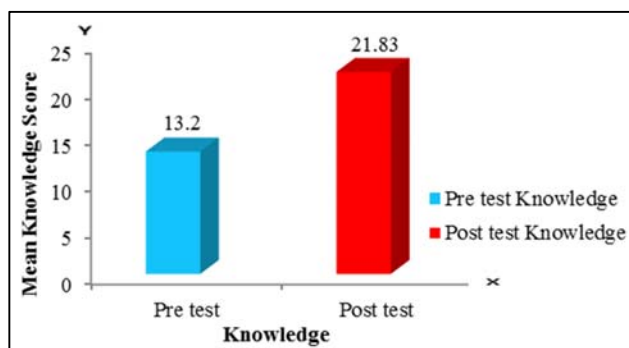
Fig 2: Comparison of Mean pre test and post test Knowledge score of women aged (30-60 years) regarding prevention of breast cancer

Major findings of the study
- Knowledge score of women, in pre test, majority of women (78.3%) had below average knowledge score, followed by 20% of them had average knowledge score and 1.7% of them had good knowledge score. In Post test, maximum number of women (58%) had good knowledge score, 42% of them had average knowledge score and none of them had below average knowledge score regarding prevention of breast cancer.
- There was a significant difference between mean pre-test and post-test knowledge score of women after planned structured teaching programme on prevention of breast cancer at the level of P< 0.001 level,**.**
- There was a significant association found between knowledge and demographic variables like parity, occupation of women, dietary habits, and source of information.

Conclusion
The study concluded that there is a statistically significant difference between pre test and post test knowledge score. Thus, it shows that structured teaching programme was effective in improving the knowledge level of women regarding prevention of breast cancer.

Recommendations
- Similar study can be conducted on a different age group Similar study can be done in different settings.
- Similar study can be conducted as a longitudinal study.
- Similar study can be done using other teaching strategies i.e. self-instruction/computer assisted instructions.

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