

EARLY DETECTION AND PREVENTION OF BREAST CANCER IN TERM KNOWLEDGE AMONG THE STUDENTS STUDYING IN HIGHER SECONDARY SCHOOL

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Abstract

"PREVENTION IS BETTER THAN CURE"

Breast cancer is a major health problem in the United States. At present there is no cure. Breast cancer is the most common invasive cancer death. Female breast cancer incidence rates vary substantially by race and ethnicity. Racial disparities in cancer mortality are driven in large part by differences in socio-economic status. Enhanced efforts are needed to ensure that all women have access to high-quality prevention, detection and treatment services.

Breast cancer is the top cancer in women both in the developed & developing world.

The incidence of breast cancer is increasing in the developing world due to increase life expectancy, increase urbanization &

adoption of western lifestyle.

Therefore, early detection & prevention in order to improve breast cancer outcome & survival remains the cornerstone of breast cancer control.

DEFINITION

The term "breast cancer/carcinoma" refers to a malignant tumour cell that has developed from cells in the breast.

The cells can grow into surrounding tissues or spread to distant areas of the body.

RISK FACTORS

risk factors of breast cancer are as follows:

- Gender: Females (1% in males)
- Race: more common in whites
- Age: increases as women gets older (age 50 over)
- Exposure to ionizing radiation:
- Heredity
- Family history: first degree relative (mother/ sister)
- Personal history: of breast cancer, colon cancer, endometrial cancer, ovarian cancer
- Menstrual history:
-Early menarche -late menopause -Nulliparity - Late age at first full term pregnancy.
- Alcohol intake
- High fat diet
- Obesity

ETIOLOGY

The etiological factors of breast cancer are:

✓ Heredity or genetically related susceptibility ✓ Weight gain during adulthood

Dietary fat intake Obesity Alcohol intake Environmental factors such as radiation exposure Family history of ovarian cancer

Other symptoms of the breast cancer are: - Pain - Nipple discharge - Retraction of nipple

Swelling in axilla - Neck swelling - Loss of weight - Loss of appetite

Bony tenderness Abdominal distension

Abdominal mass - Disturbed cognitive function

EARLY DETECTION & PREVENTION OF BREAST CANCER

EARLY DETECTION:

There are two early detection methods: 1) Early diagnosis or awareness of early signs & symptoms in order to facilitate diagnosis & early treatment. 2) Screening test to identify individuals with an abnormality suggestive of cancer.

MAMMOGRAPHY SCREENING:

Mammography screening is the process of using low energy x rays to examine the human breast for diagnosis & screening.

Mammography is also called macrography.

Mammography screening is the only screening method that has proven to be effective. It is very complex & resource intensive.

It can be used to check breast cancer in women who have no signs & symptoms of disease. Screening Mammogram usually involves two or more x-ray pictures or images of each breast.

TREATMENT MODALITIES

There are various treatment modalities available for breast cancer that are: Surgery

- Chemotherapy
- Radiation therapy. Immunotherapy
- Hormonal Therapy SURGERY:

The most common form of treatment for breast cancer is surgery. This involves removing the tumour & nearby margins. It includes lumpectomy, partial mastectomy, radical mastectomy & reconstruction.

Lect disc

CHEMOTHERAPY:

Chemotherapy is a breast cancer treatment method that uses a combination of the drugs to either destroy cancer cells or slow down the growth of cancer cells.

RADIATION THERAPY:

Radiation therapy uses high energy rays to kill cancer cells. It affects nearby skin or cells only in the part of the body that is treated with the radiation.

PREVENTION OF BREAST CANCER

There are some preventive steps that can help lower risk of breast cancer:

Avoid alcohol: more alcohol drinking, increase the risk of developing breast cancer. - Don't smoke: particularly in premenopausal women, there is a link between smoking & breast cancer.

• Control weight: obesity increases the risk. Be physically active: physical activity helps maintain healthy weight, which prevents cancer.

• Breast fed: longer breast fed, greater the protective effect.

• Avoid exposure to radiation & environmental pollution

such as high dose - radiation, CT scan. Eat healthy diet: eat healthy diet like fruits & vegetables can help lower the risk of breast cancer.

BACKGROUND OF THE STUDY

FLANCE 2006, in his study stated that women face a lot of problems in their life. Some of them have no related cause's weather they are not able to deal with them because they are worried about it and even trying to solve it. In his study in 1985, Shafer stated that breast is the leading site of cancer incidence and death among women from 40 to 44 years of age. And also stated that cancer is termed as malignancy of tissue due to exposure of carcinogens. It results in a reaction from carcinogens thus resulting in metabolite. Breast cancer is woman's number one other health problems may also cause the symptoms such as breast pain.

Knowledge of breast cancer risk factors makes women undergo mammography for screening, leading to detection of breast cancer in earlier stages and a resultant improvement in survival rates. The awareness about the prevention and early detection of breast cancer makes women more active in their health and their health decisions. According to Lewis mantic Sharon, in 1966, the essential factor in early detection of breast cancer and other breast related problems are regular performance of breast self-examination. Breast self-examination is an important tool in early detection because approximately 90% of palpable lesions in the breast is found by the women herself coincidentally or while doing BSE.

Jimonli 2006, in his study demonstrated that with proper study design and well controlled sample processing

protocols, it is possible to discover and validate bio-markers with consistent performance across multiple sites using protein chips, rays and mass spectrometry. The aim of the study was to discover additional serum biomarkers that could improve the performance of the current biomarker panel for breast cancer early detection, by in depth proteomic analysis using serum fractionation in combination with multiple rays on specimens collected by multiple institutions.

A thorough study of Davidson, in 2007 shows that breast cancer stage at diagnosis is directly related to survival and mortality. Since 1991, A state and federally funded programme has provided free breast exams and mammograms to low income and underinsured women. Although screening rates have increased over time, disparities in breast cancer stage at diagnosis continue to persist. Most research has focused on individual level determinants. Less is known about the effects of community level determinants on breast cancer stage at diagnosis. This study identifies specific community risk factors that were correlated with breast cancer stage at diagnosis in 1990 & 2000.

According to JANYAN, in 2009 breast cancer is the most common cancer among women in many areas and the leading cause of mortality associated with cancer women. Although the true incidence of breast cancer is generally not known, several publications indicate a trend towards an increased incidence of the disease in many areas. While very little can be done to limit the main causative risk factors Which have been documented in epidemiological studies, important advances have been made in strategy for early detection & therapeutic intervention which may contribute to more favourable outcomes of breast cancer patients.

It was decided to examine breast cancer and knowledge and practices Breast Self-Examination among the antenatal women as a first step towards introduction of intervention programmes, which are currently not existent. If the practices of Breast Self-Examination are found to be low in this study the information obtained will enable to design culturally sensitive health education materials that will be useful in prevention mortality from breast cancer, Hence the need for the study.

NEED OF THE STUDY

Breast cancer is the most common cause of cancer related death in women. While the majority of new breast cancer diagnosed as a result of an abnormality seen on a mammography. Still breast cancer is the most common cause of death in women between the ages of 45 to 55 years.

Currently, about 2,30,480 new cases of invasive breast cancer are diagnosed in women each year. Risk of developing breast cancer also increases with increasing age. However, after increasing for more than two decades, female breast cancer incidence rates decreased by about 2% per year from 1999 to 2005.

There is sufficient evidence to show that mammography screening among women aged 50 to 69 years could reduce mortality from breast cancer by 5 to 25%. In India, the incidence of breast cancer is increasing with an estimated 80,000 new cases diagnosed yearly. Breast cancer accounts for 19 to 34% of all cancer causes among women India.

Acc. To American cancer society, about 1.3 million women will be diagnosed with this cancer annually worldwide and about 465,000 will die from disease. However, about 40,910 breast cancer deaths are expected in 2010. So, when looking at individual statistics by age group, the probability of developing breast cancer within the next 10 years are follows:

By age 20..... 1 out of 229
By age 30..... 1 out of 68
By age 40..... 1 out of 37
By age 50..... 1 out of 26
By age 60..... 1 out of 24
By age 70..... 1 out of 8

It is estimated that worldwide over 508000 women die in 2011 due to breast cancer (global health estimate, WHO 2013). Although breast cancer is thought to be a disease of the developed world, almost 50% of breast cancer cases and 58% of deaths occur in less developed countries (GLOBOCAN 2008). Incidence rates vary greatly worldwide from 19.3/100000 women in eastern Africa to 89.7 per 100000 women in western Europe. In most of the developing regions the incidence rates are below 40 per 100000 (GLOBOCAN 2008).

for India 144,937 women were newly detected with breast cancer in 2012. 70,218 women died of breast cancer. In India every 2 women newly diagnosed with breast cancer, one lady is dying of it. Estimated new cases in 2017 is 252,710. % of all new cancer cases 15.0% and estimated death is 40,610 in 2017. % of all cancer deaths 6.8%.

STATEMENT OF THE PROBLEM

"A Study to Assess the Effectiveness of Planned Teaching Programme

On Early Detection and Prevention of Breast Cancer in Term
Knowledge Among the Commerce Students Studying in
Selected Private Higher Secondary Gujarati medium
School of Ahmedabad city in Gujarat state"

OBJECTIVES

To Assess the knowledge on early detection and prevention of breast cancer among the commerce students of selected higher secondary school before and after administering the planned teaching programme.
- To evaluate the effectiveness of a structured teaching programme. On Prevention of breast cancer among the knowledge of commerce students in selected higher secondary schools.
- To find out the Association between pre-test knowledge score with selected demographic variable.

HYPOTHESIS OF THE STUDY

- There will be a significant difference between the mean pre-test and post-test knowledge score regarding early detection and prevention of breast cancer among commerce students in selected higher secondary schools at 0.05 level in significance.

OPERATIONAL DEFINITION

- Effectiveness:

It determines the extent to which the structured teaching programme has achieved the desired effect in improving the knowledge of commerce students in selected higher secondary school regarding early detection and prevention of breast cancer.

- Assess:

It is the organized, systematic and continuous process of collecting data from commerce students of higher secondary school regarding early detection and prevention of breast cancer.

- Planned teaching programme:

It refers to a systematically organized teaching plan on early detection and prevention of breast cancer to provide enhancement of knowledge and improvement in the attitude of commerce students in higher secondary school.

- Breast cancer:

Breast cancer refers to a malignant cell developed in the breast.

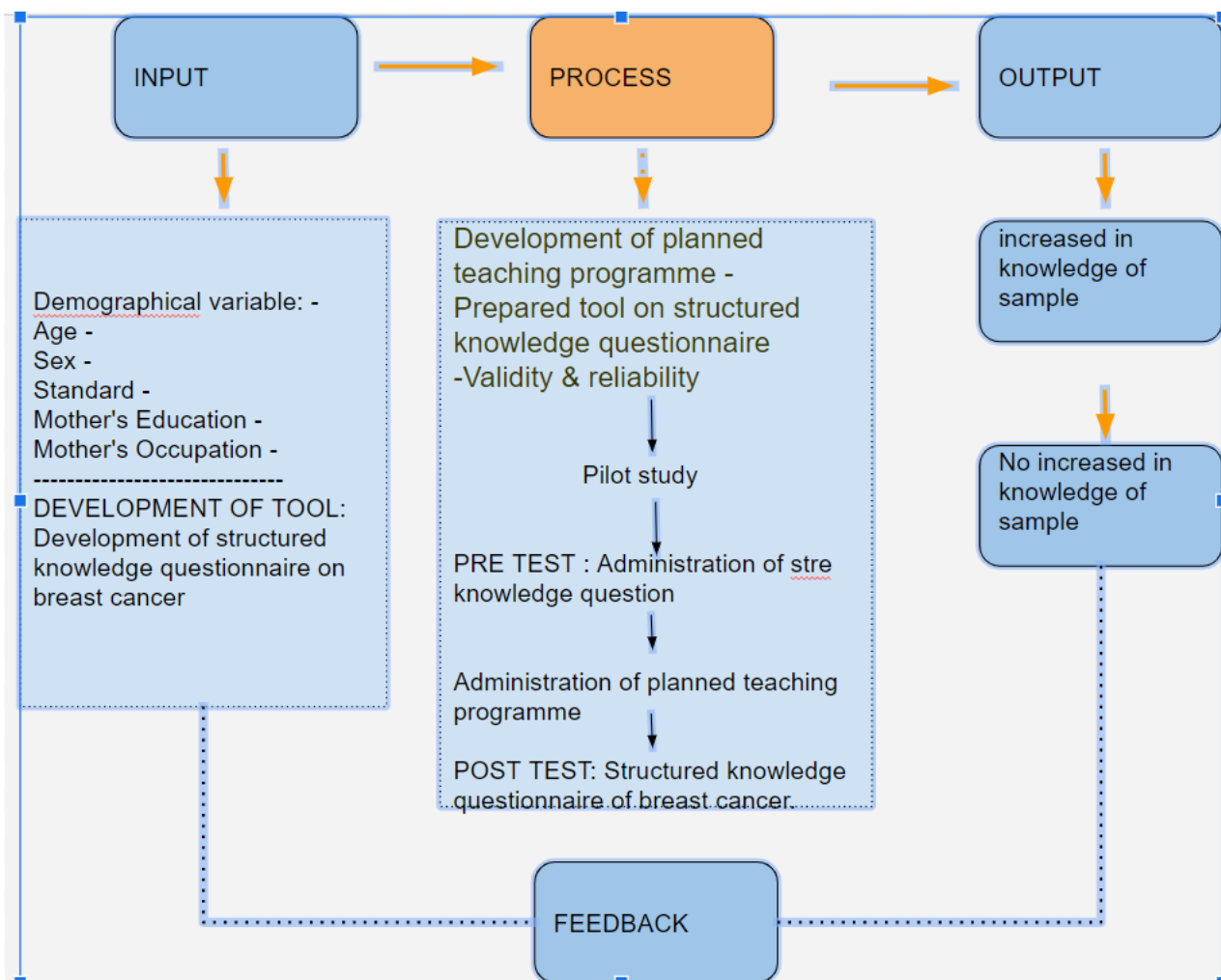
- Commerce students:

A Student who studies in commerce stream in 11th and 12th standard.

- Higher secondary private school:

The higher secondary private school refers to a school in which students receive higher secondary education from 11th and 12th standard.

FIGURE - 1
CONCEPTUAL FRAMEWORK BASED ON SYSTEM THEORY MODEL



METHODOLOGY

methodology indicates the general pattern of organizing the procedure for gathering valid and reliable data for an investigation This chapter deals with the description of the research approach, the study setting, population, sample detection, sample size and sample technique, data collection technique, description of the tool, validity and reliability and pilot study is described. Clearly procedures for data collection, plan for data analysis and use of statistics are also started clearly. The study has been conducted to assess the effectiveness of a planned teaching programme on early detection and prevention of breast cancer in term knowledge among the commerce students studying in selected private higher secondary Gujarati medium school in Ahmedabad city, Gujarat state.Higher secondary schoolin Ahmedabad Gujarat

RESEARCH DESIGN

Treese and Treese (1989) stated that research design is the investigator overall plan for obtaining answers to research questions for testing. Research hypothesis is referred to as a research design. Research design selected for the present study was one group pre-test & post-test design. The investigator developed a structured knowledge questionnaire.

RATIONALE

Investigators made decisions about the full nature of interventions as a part of research design. The total

sample of 50 commerce students in selected higher secondary Gujarati medium schools of Ahmedabad city as a group in this design and is pre-tested.

Pre-test

planned teaching programme

Post-test

01

02

01= knowledge among commerce students before introduction

Of planned teaching programme

x = Planned teaching programme

02= knowledge among commerce students after introduction

Of planned teaching programme

VARIABLES:

Variable is an attribute or characteristics that can have more than one value such as age, sex and standard.

1) Independent variable:

In this study the independent variable is a planned teaching programme on early detection and prevention of breast cancer.

2) Dependent variable:

In this study the dependent variable is the knowledge of commerce students regarding early detection and prevention of breast cancer

DESCRIPTION OF TOOL:

The structured knowledge test was developed for the present study to assess the knowledge of the sample attending in selected private Gujarati medium higher secondary school of Ahmedabad city, Gujarat.

The structured knowledge questionnaire to assess the knowledge of early detection and prevention of breast cancer among the commerce students who attend selected private Gujarati medium higher secondary school of Ahmedabad city, Gujarat

Tool is divided into two sections:

Section 1: demographic data in that consists of items on personal data such as Name, Age, Sex and Standard and Date and Time of data collection.

Section 2: Structured Knowledge Questionnaire.

VALIDITY OF THE TOOL

In order to measure the validity of the structured knowledge questionnaire, the tool was given to five experts from the field of nursing, Gynaecology general surgery department, medical surgical nursing as well as oncology department. The experts were selected on the basis of their clinical teaching experience and interest in problem being studied; They were required to judge the relevancy, objectivity and appropriateness of the content areas. Performa for the tool validation was prepared by the investigators for the tool validation. Tool was checked and after necessary changes validity certificates was given by the experts.

RELIABILITY OF TOOL

Reliability of a measuring instrument is a criterion for assessing quality, adequacy and consistency. Reliability of the instrument was found the structured knowledge questionnaire was found through the pre-test and post-test. Reliability of the tool is important because it permits the estimation from single administration of a test without the need to divide the test into half. It uses has become common in test development. The reliability of the structured knowledge questionnaire was 0.76 which is more than 0.5 hence the structured knowledge questionnaire was found to be reliable.

PILOT STUDY

Before starting for data collection for the study pilot project formula permission was obtained by the concerned authority principal of G.D. Higher secondary school. After obtaining permission the pilot study was conducted in G.D. higher secondary school. The objective of the pilot study was to validate the consistency of the data collection instrument, adequacy of the contents, Feasibility of the study and time duration required for data collection instruments. The investigators collected the data from commerce students and samples were selected by assemble techniques.

The assessment of knowledge was obtained by administering a structured test on early detection and prevention of breast cancer among commerce students by using a structured knowledge questionnaire. The

time taken for completing the questionnaire ranged 30 min, findings of the pilot study revealed that it was feasible to conduct the study. Therefore, the plan for data collection was finalized as the investigators did not face any problem during pilot study.

Planned teaching programme was administered after the pre-test was completed. The duration of administering the planned teaching programme was of 30 minutes, after that post-test 30 minutes.

Sr.No .	Personal Data	Frequency	Percentage%
1	AGE:		
	15 Year	12	24%
	16 Year	24	48%
	17 Year	14	28%
2	Standard of students		
	11th	25	50%
3	Mother's Education :		
	• Primary	18	36%
	• Secondary	15	30%
	• Higher Secondary	12	24%
4	Mother's Occupation :		
	• Housewife	45	90%
5	Age of Menarche :		
	• Before age of 12 year	06	12%
	• 12-15 year	42	84%
6	Family history of breast cancer :		
	• Yes	2	4%
	• No	48	96%

AREA	MAX. Score	PRE-TEST SCORE			POST-TEST SCORE			MEAN DIFFERENCE
		Mean	Mean percentage %	SD	Mean	Mean percentage %	SD	
INTRODUCTION	2	0.52	26%	0.6	1.3	65%	0.5	0.78
DEFINITION	1	0.54	54%	0.4	0.82	82%	0.3	0.28
RISK FACTORS	4	1.32	33%	0.9	2.7	67.50%	0.8	1.38
ETIOLOGY	2	0.58	29%	0.6	1.44	72%	0.5	0.86
TYPES	1	0.12	12%	0.4	0.78	78%	0.3	0.66
STAGES	2	0.62	31%	0.6	1.44	72%	0.5	0.82
S/S	1	0.52	52%	0.4	0.96	96%	0.1	0.44
EARLY DETECTION	10	4.18	41.80%	1.6	7.84	78.40%	1.01	3.66
TREATMENT	1	0.44	44%	0.4	0.96	96%	0.1	0.52
PREVENTION	1	0.38	38%	0.4	0.92	92%	0.2	0.54
TOTAL	25	9.22		6.3	19.16		4.31	9.94

KNOWLEDGE SCORE	OBTAINED SCORE	MEAN	MEAN Difference	SD	t'test	tabulated	LEVEL OF SIGNIFICANCE
PRE TEST	459	9.22		6.3			
POST TEST	976	19.16	9.94	4.31	5.78	2.05	0.05

CONCLUSION

On the basis of finding the study the following conclusion was drawn: knowledge deficit existed in the sample of selected private higher secondary Gujarati medium school of Ahmedabad city in Gujarat state regarding early detection and prevention of breast cancer. The study in terms of a planned teaching programme was found to be effective in enhancing the knowledge of the sample regarding early detection and prevention of breast cancer. Samples gain significant knowledge after exposure of the planned teaching programme.

SUMMARY

The aim of study was to assess the knowledge of commerce students regarding early detection and prevention of breast cancer.

The investigator collected data by establishing rapport with the subject and confidentiality of their response was analysed and interpreted in terms of objective of study. Description and inferential statistics were utilized for the data analysis. The study consists of five chapters.

To assess the knowledge regarding early detection and prevention of breast cancer and after administration of planned teaching programme among commerce students studying in selected private higher secondary Gujarati medium school of Ahmedabad city in Gujarat state.

To identify the relationship between knowledge of commerce students regarding early detection and prevention of breast cancer before and after administration of planned teaching programme.

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