A Study to Assess the Knowledge Regarding Breast Cancer Screening Programs among Women Attending Selected Outpatient Department of TMM Hospital, Thiruvalla

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Abstract

Background: This study examined the awareness of women visiting TMM Hospital, Thiruvalla's outpatient department (OPD) regarding breast cancer screening programs.

Methods: Quantitative research was used in this study. Survey research is used in this study. The study is conducted in hospitals. Selected ENT, Ortho, Dental, Cardiac, and Neuro OPDs of TMM Hospital in Thiruvalla were investigated. The population is 30 women. The study sample included 30 women. A suitable non-probability sampling method is used.

Results: The results show that eight (26.6%) of the thirty samples are 35–40 years old, five (16.6%) are 41–45, eight (26.6%) are 46–50, and nine (30%) are 51–55. Regarding education, eleven samples (36.6%) completed high school, two (6.6%) completed higher secondary education, two (6.6%) completed a diploma program, eleven (36.6%) completed graduate school, and four (13.3%) completed postgraduate studies. In this study, 7 (23.3%) are professionals, 21 (70%) are housewives, and 2 (6.6%) are unemployed. Twelve (40%) of the thirty samples have a household income of <$10,000, eight (26.6%) between $10,000 and $20,000, two (6.6%) between $20,000 and $30,000, and eight (26.6%) over $30,000. Fourteen (46.6%) of thirty samples had good knowledge of breast cancer screening programs, nine (30%) had outstanding knowledge, and seven (23.3%) had moderate knowledge.

Conclusions: Knowledge of breast cancer screening programs is linked to education, occupation, and breastfeeding duration. Knowledge of breast cancer screening programs is unrelated to demographic factors like age. The study identified a need for breast cancer education.

Keywords: Breast cancer, knowledge, outpatient department, screening programs, women

INTRODUCTION

When it comes to fertility, women's breasts have always been an important factor, and they have also been a symbol of womanhood. The presence of the breast, sometimes known as the "mamma," is the primary reason why humans are categorized as mammalian species. In addition to its cosmetic value, it is an altered sweat organ that carries a significant amount of importance due to its ability to produce breast milk. It is one of the organs that are influenced by a variety of endocrinological difficulties and is influenced by a variety of hormones without pausing for even a single minute.[1]

One of the two prominences that can be found on the top ventral area of a primate's torso is something called the breast. The embryological tissues that go into the development of breasts are the same for both boys and females. It performs

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the function of the mammary glands in females, which in turn make and secrete milk for the purpose of feeding newborns. A network of subcutaneous fat encases nipple ducts, and the breast's size and shape are determined by the many tissues that make up the breast. Lobules, which are clusters of alveoli, are located at the extremities of the ducts. These lobules are responsible for the production and storage of milk in response to hormonal cues. In the course of pregnancy, the breast reacts to a complicated interaction of hormones, which includes estrogens, progesterone, and prolactin. These hormones are responsible for mediating the completion of the breast's development, namely the maturity of the lobules or alveoli, in preparation for lactation and breastfeeding.[2]

It is estimated that cancer will be responsible for over 10 million deaths worldwide in the year 2020, making it the primary contributor to mortality worldwide. In the year 2020, breast cancer was the form of the disease that is most common, accounting for 2.26 million occurrences. The disease known as breast cancer is characterized by the formation of cancer cells inside the tissues of the breast. This specific type of cancer cell has the potential to infect the tissues that are nearby or to spread to additional bodily parts. Cancer of the breast is the most prevalent kind of cancer in American women, with the exception of skin cancers that are not melanoma tumors. In the United States, lung cancer is the primary cause of cancer-related deaths among women, but this is the second leading cause. When it comes to breast cancer mortality rates, there are significant variations. As of the year 2019, the American Cancer Society reported that among black women with a cancer diagnosis, breast cancer was the leading cause of death. Black women have a 41% higher risk of dying from breast cancer than white women, despite the fact that black women are less likely to be diagnosed with the disease.[3]

It is the most prevalent kind of cancer, and it is responsible for the greatest number of deaths that are caused by cancer in women around the world. In India, 19.34% of all cancer cases among women are breast cancer patients. In the majority of cases, one sign of breast cancer is a lump that is painless, and to a lesser extent, it is accompanied by other symptoms. On the other hand, if breast cancer is diagnosed in its early stages, it is possible to practically completely cure the disease. However, for women to seek medical assistance at an earlier stage in the progression of the disease, they need to be "breast aware." This means that they must be capable of recognizing the signs and symptoms of breast cancer through the practice of screening consistently.[4]

The term "breast cancer screening" describes the procedure when a woman's breasts are checked for the presence of cancer before the disease manifests itself in any way. It is imperative that every woman's health-care practitioner gives them information regarding the screening alternatives that are most suitable for them. Screening for breast cancer involves conducting examinations on individuals who do not exhibit any symptoms using a variety of tests and equipment. The process of screening makes early detection easier, which in turn ensures that patients can receive the necessary medical attention sooner rather than later. The cancer that is discovered during the screening process is often considered to be of a lower size in comparison to tumors that are discovered when a patient is already experiencing symptoms. Both the size of the malignancy and the degree to which it has spread to other organs and tissues are important factors in determining the prognosis of a cancer patient. It is possible to lower the mortality and morbidity associated with breast cancer by the use of preventative measures such as mammography, clinical breast inspection (magnetic resonance imaging), and breast self-examination (BSE).[5,6]

The BSE is a helpful and inexpensive self-care activity that may be done on a monthly basis by women. This will assist in the detection of cancer in its early stages, which can save lives. As a result of the fact that women are required to be aware of these programs, it is essential to conduct education regarding the various ways of breast cancer screening.

Objectives
- To assess the knowledge regarding breast cancer screening programs among women above 35 years attending the selected outpatient department (OPD) of TMM hospital, Thiruvalla
- To find the association between knowledge of breast cancer screening program with their selected demographic variables
- To provide health education regarding breast cancer screening program with pamphlet.

Assumption
- Subjects will have less knowledge regarding breast cancer screening programs
- Educated women will have better knowledge regarding breast cancer screening programs than those who are uneducated. The knowledge of the women will improve after the structured teaching program.

MATERIALS AND METHODS

Research approach
This study used a quantitative research approach as its methodology.

Research design
In this study, a survey research design is used.

Setting of study
Study was conducted in selected OPD (ENT, Ortho, Dental, Cardiac, and Neuro OPD) of TMM Hospital, Thiruvalla.

Population of the study
In this study, the population comprises 30 women attending OPD of TMM hospital who are in the age group of 35–55 years.

Sample size
Sample of the study comprises 30 women who met the inclusion and exclusion criteria.

Sample technique

The study uses a non-probability convenient sampling strategy to choose the study's samples.

Description of tool

Tool consists of two sections:

- Section A: Sociodemographic variables.
  This was designed to elicit demographic information from the samples and consists of 15 items.
- Section B: Structured knowledge questionnaire.
  Four options for each question had one right solution. Samples were told to pick the best answer. Each correct answer scores one and each incorrect response scores 0.

Statistics

Both descriptive and inferential statistics were used to analyze the data.

Descriptive statistics

Data are listed, organized, and graphed in descriptive statistics. It organizes and summarizes facts for useful interpretation. Sociodemographic factors were described by frequency and proportion.

Inferential statistics

By studying a portion of a sample set, inferential statistics can derive conclusions about the state of a broader population. This study uses mean and standard deviation to determine if most samples are knowledgeable.

RESULTS

Section A: Distribution of samples according to their demographic data

Table 1 shows that 8 (26.6%) of the 30 samples are 35–40 years old. 5 samples (16.6%) are 41–45, 8 samples (26.6%) are 46–50 years

Table 1: Frequency and percentage distribution of sample based on the demographic variables

S. No.	Demographic variables	Frequency (F)	Percentage
1	Age Group		
	35–40	8	26.6
	41–45	5	16.6
	46–50	8	26.6
	51–55	9	30
2	Occupation		
	Professional	7	23.3
	Housewife	21	70
	Unemployed	2	6.6
3	Dietary Pattern		
	Mixed	23	76.6
	Non-vegetarian	7	23.3
4	Age at Menarche		
	<10 years	1	3.3
	10–12 years	7	23.3
	13–15 years	7	23.3
	16–18 years	5	16.6
5	Breastfeeding Duration		
	<12 months	13	43.3
	12–18 months	2	6.6
	18–24 months	12	40
	Not breastfed	3	10

old, and 9 (30%) are 51–55. According to education, 11 samples (36.6%) have high school education, 2 have higher secondary education, 2 have diplomas, 11 have graduate education, and 4 have postgraduate education. This survey includes 2 unemployed (6.6%), 21 housewives (70%), and 7 professionals (23.3%). Twelve (40%) of 30 samples have a family income <10,000. 8 samples (26.6%) have a household income of 10,001–20,000, 2 (6.6%) have 20,001–30,000, and 8 (26.6%) have >30,000.

Section B: Distribution of samples based on the knowledge scores

Table 2 shows that among the 30 samples, 14 samples (46.6%) have good knowledge regarding breast cancer screening programs, 9 samples (30%) have excellent knowledge, and 7 samples (23.3%) have average level of knowledge.

Section C: Analyzing the association between the selected demographic variables and knowledge regarding breast cancer screening programs

Table 3 shows that knowledge of breast cancer screening programs is associated with education, occupation, and breastfeeding duration, but not with age.

DISCUSSION

Madhu *et al*., examined the practices, attitudes, and understanding of breast cancer screening among women in reproductive age (15–45) in a few rural Chamarajanagar district, as well as the correlation between these scores and demographic traits. The survey found that 0.7% of 150 participants had moderate knowledge and 99.3% had inadequate understanding. The majority of participants (90.7%) have a relatively positive attitude regarding breast cancer screening, 9.3% have a negative attitude, and none have a positive attitude. BSE is not practiced by 100% of subjects. Many participants lack knowledge about breast cancer screening, many women have a moderately positive attitude about it, and most have poor screening practices, so an educational program to prevent and detect breast cancer is needed. IEC rural operations should increase.[7]

Singh and Turuk examined 20–60-year-old women's understanding of the causes, risk factors, and self-examination of the breasts. Out of 100 women, 58% recognized breast cancer ranked highest among most common, 52% knew about BSE, and 28% practiced it. Health education initiatives on early detection and signs of breast cancer diagnosis are needed. Encourage regular self-examination of breasts to detect any abnormalities early and improve the chances of successful treatment. Health and media education should target women 20 and older, preferably 35 and older. Research on women's breast cancer understanding and practice is suggested.[8]

Dahiya *et al*., examined Delhi women's breast cancer screening knowledge and habits. Family history of breast cancer, 59.5%; smoking, 57.7%; old age, 56.3%; lack of physical exercise, 51.9%; lack of nursing, 48.2%; late menopause, 37.4%; and early menarche, 34.7% was reported. Women aged <30 and unmarried had considerably higher knowledge scores

Table 2: Frequency, percentage, mean, standard deviation of samples based on the knowledge scores

S. No.	Score	Level of knowledge	Frequency (f)	Percentage	Mean	Standard deviation
1	5.5–11.5	Average	7	23.3	3.2	3.08
2	11.5–17.5	Good	14	46.6		
3	17.5–22.5	Excellent	9	30		

Table 3: Association between knowledge and demographic variables

S. No.	Demographic variables	Average	Good	Excellent	Degree of Freedom	Table Value	Chi-square	Significance
1	Age in years				2	5.99	10.05	Significant
	35–40	1	6	-				
	41–45	1	4	1				
	46–50	2	5	1				
	51–60	4	4	1				
2	Occupation				4	9.49	0.37	Not significant
	Part Time	-	-	-				
	Housewife	7	14	-				
	Professional	1	3	3				
	Unemployed	1	1	-				
3	Education				6	12.59	1.27	Not significant
	High school	2	1	-				
	Higher Secondary	3	6	1				
	Graduate	4	6	1				
	Post Graduate	-	4	-				
	Diploma	-	1	1				

($P \leq 0.01$). BSE was done monthly by 41.4% of participants. Some 48% knew that mammography detects breast cancer early. Since over three-fourths of participants believed that BSE may help diagnose breast cancer early, which is unsupported by evidence, future research should examine the effects of promoting BSE over screening mammography. Our findings suggest that adult women should be educated about breast cancer risk factors and early detection.[9]

Kumarasamy *et al*., planned to assess rural Trichy women's BSE knowledge and practice. The average age of the study group was 36.9 ± 8.8 years. Literacy was 80%. Most women 178 (89%) knew about breast cancer. Only 26% of women knew about BSE. Only 18% of women had checked their breasts, and 5% did so often. Age and education were substantially associated with BSE awareness. Lack of BSE understanding and practice among women is unacceptable. BSE awareness and practice should be promoted through health education.[10]

Kommula *et al*., deals with BSE awareness and practice among women in Konaseema Institute of Medical Sciences, Andhra Pradesh, India. Study participants included 206 women. Factors such as age, education, breast cancer knowledge, family history, awareness of breast self-examination (BSE), and the practice of BSE all play a crucial role in early detection and prevention of breast cancer. It was done with Epi info 7.0. The majority (72.3%) were 21–40 years old and 61.2% were illiterates. 16.5% of people know about BSE, 2.4% practice it. These findings should prompt health-care workers to reflect on BSE knowledge.[11]

CONCLUSION

The goal of the current study was to evaluate participants' awareness of breast cancer screening programs in women above 35 years attending OPD of TMM hospital, Thiruvalla. Review of literature was done on studies related to knowledge regarding breast cancer. Descriptive research design was one chosen for the investigation. The main study setting was hospital settings. A non-probability convenient sampling method was used to select samples. The tool in the study was a structured knowledge questionnaire and the technique used was a structured interview schedule. The investigation showed that there was a need for an educational class regarding breast cancer.

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