A Study to Assess Knowledge, Attitude, and Practice Related to Breast Cancer Screening Among Women Above the Age of 35 Years at Selected area, Coimbatore

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Abstract-Background: Breast cancer is the leading cause of cancer-related deaths among women in India. Early detection through regular screening significantly improves the prognosis and survival rates. However, knowledge, attitude, and practice (KAP) related to breast cancer screening remain inadequate, especially among women in semi-urban and low-income communities. Aim: To assess the knowledge, attitude, and practice related to breast cancer screening among women above the age of 35 years at Velakinar, Coimbatore. Methods: A descriptive cross-sectional study was conducted among 50 women aged 35 years and above residing in Velakinar, using a non-probability purposive sampling technique. Data were collected through a structured questionnaire comprising sections on demographic variables, knowledge, attitude, and practice regarding breast cancer screening. Descriptive and inferential statistics were used to analyze the data. Results: The findings revealed that a significant proportion of women had inadequate knowledge about breast cancer and its screening methods. Attitudes were moderately positive, yet screening practices such as breast self-examination (BSE), clinical breast examination (CBE), and mammography were rarely performed. A significant association was found between knowledge levels and educational status ($p < 0.05$). Conclusion: The study highlights the urgent need for community-based educational interventions to enhance awareness and promote regular breast cancer screening practices among women, particularly in urban slum areas like Velakinar. Nursing professionals and health educators play a vital role in addressing these gaps to reduce the burden of late-stage breast cancer diagnoses.

Keywords: Breast cancer, screening, knowledge, attitude, practice, women, community health, Velakinar.

I INTRODUCTION

Breast cancer is a significant public health concern and the most common cancer affecting women globally and nationally. According to the World Health Organization (WHO, 2023), more than 2.3 million women were diagnosed with breast cancer in 2020, with approximately 685,000 deaths reported worldwide. In India, breast cancer accounts for 27.7% of all new cancer cases among women, making it the most frequently diagnosed cancer in the country (1)

Early detection through screening is the cornerstone of breast cancer control and significantly reduces mortality rates. Screening methods such as Breast Self-Examination (BSE), Clinical Breast Examination (CBE), and mammography have proven to detect cancer in its early stages, enabling timely treatment and improved survival outcomes. Despite these benefits, the practice of breast cancer screening remains low in many developing countries, including India, due to lack of awareness, cultural stigma, fear, and limited access to screening facilities. (2)
Knowledge about the risk factors, warning signs, and available screening tools for breast cancer is essential for women, especially those over the age of 35, who fall into the higher-risk group. According to Saxena et al. (2020), only 21.9% of women in low-income urban communities in India had sufficient knowledge

regarding breast cancer symptoms, and less than 15% practiced regular BSE. Attitude also plays a crucial role in influencing health-seeking behavior. Negative beliefs, fear of diagnosis, and misconceptions often deter women from undergoing timely screening (3).

In regions like Velakinar, a semi-urban area of Coimbatore, women face challenges such as poor health literacy, inadequate access to information, and economic limitations, which hinder the adoption of preventive health practices. Moreover, there is a general lack of structured community-based awareness programs focusing on women's health issues, particularly breast cancer. (4)

Given this context, it becomes crucial to evaluate the current knowledge, attitude, and practice of breast cancer screening among women in this community. Understanding these dimensions will help health professionals, particularly community health nurses, to design and implement effective interventions aimed at reducing the incidence and mortality associated with breast cancer through early detection. (5)

II NEED FOR THE STUDY

Breast cancer incidence has shown a rapid rise in urban and semi-urban areas of India, with increasing reports of late-stage diagnoses due to poor awareness and limited screening. Although breast cancer screening can significantly reduce mortality, many women remain unaware of the methods and importance of early detection. Studies indicate that women above 35 years are at increased risk and are ideal candidates for regular screening. The Velakinar area, an urban slum in Coimbatore, presents challenges related to socio-economic status, health access, and health literacy. Therefore, it is imperative to evaluate the current level of knowledge, attitude, and practice regarding breast cancer screening in this vulnerable group to plan appropriate nursing interventions and public health strategies.

Statement of the problem

A Study to Assess Knowledge, Attitude, and Practice Related to Breast Cancer Screening Among Women Above the Age of 35 Years at Velakinar, Coimbatore

Objectives of the study

- To assess the level of knowledge regarding breast cancer and its screening methods among women above 35 years.
- To assess the attitude of women towards breast cancer screening.
- To evaluate the practice of breast cancer screening techniques (BSE, CBE, and mammography).
- To identify the association between knowledge, attitude, and practice with selected demographic variables.

III MATERIALS AND METHODS

A descriptive cross-sectional research design was adopted to assess the knowledge, attitude, and practice related to breast cancer screening among women above 35 years of age residing in Velakinar, Coimbatore. The study was conducted in the Velakinar area, which is a semi-urban locality with a mixed socio-economic population, including many low-income households. This area was selected due to its limited access to structured health education and preventive screening programs.

The study population included women aged 35 years and above who had been residing in the area for a minimum period of six months. A total of 50 participants were selected using a non-probability purposive sampling technique. Inclusion criteria comprised women who were above 35 years of age, willing to participate, and capable of understanding the purpose of the study. Women with a prior diagnosis of breast cancer or those who were critically ill or unable to respond during the data collection period were excluded from the study.

Data collection was carried out using a structured questionnaire prepared in both English and Tamil for better comprehension. The tool was divided into four main sections. Section A focused on demographic variables such as age, education, occupation, marital status, family history of breast cancer, and income level. Section B consisted of 20 multiple-choice questions to assess knowledge regarding breast cancer, including risk factors, symptoms, and available screening methods. Section C included 10 statements related to attitude, measured on a five-point Likert scale ranging from "strongly agree" to "strongly disagree" to determine the participants' beliefs, perceptions, and feelings about breast cancer

screening. Section D included a checklist on current practices, such as frequency and performance of breast self-examination (BSE), clinical breast examination (CBE), and mammography.

Before initiating data collection, ethical clearance was obtained from the Institutional Ethical Committee. Formal permission was taken from local authorities, and informed written consent was collected from each participant. Data were collected through face-to-face interviews conducted at participants' residences, ensuring privacy and confidentiality. The interviews were conducted in the local language by the principal investigator, and each session took approximately 20 to 30 minutes.

The collected data were entered into a Microsoft Excel spreadsheet and analyzed using SPSS software. Descriptive statistics such as frequency, percentage, mean, and standard deviation were used to summarize knowledge, attitude, and practice levels. Inferential statistics, specifically the Chi-square test, were applied to determine the association between knowledge, attitude, and practice levels with selected socio-demographic variables.

IV RESULTS

The present study was conducted among 50 women aged above 35 years residing in the Velakinar area of Coimbatore to assess their knowledge, attitude, and practice related to breast cancer screening. The findings are detailed below:

1.Socio-demographic Characteristics

Among the 50 respondents, the majority (40%) were in the age group of 36–45 years, followed by 32% in the 46–55 years group, and 28% were above 55 years. Regarding educational status, 34% of the participants had completed secondary education, 30% were graduates, 20% had only primary education, and 16% were illiterate. In terms of occupation, 42% were homemakers, 28% were unskilled workers, 20% were employed in private sectors, and 10% were self-employed. The majority (60%) reported a monthly family income below ₹15,000, while 26% earned between ₹15,001–25,000, and only 14% reported income above ₹25,000. Additionally, 12% of participants reported a family history of breast cancer.

Knowledge Related to Breast Cancer and Screening:

The assessment of knowledge revealed that only 18% of participants had adequate knowledge about breast cancer, 42% had moderate knowledge, and the remaining 40% had poor knowledge. Most of the women (70%) were unaware of the risk factors associated with breast cancer, such as age, obesity, family history, and lifestyle habits. Only 24% correctly identified a lump in the breast as a warning sign, while others mistakenly believed pain was the most common early symptom. Regarding screening, 30% had heard of breast self-examination (BSE), but only 12% knew the correct procedure and frequency. Awareness about clinical breast examination (CBE) and mammography was very low, with only 10% and 6% of participants, respectively, reporting any prior knowledge.

Table 1: Level of Knowledge on Breast Cancer and Screening

Knowledge Level		Percentage (%)
Adequate	9	18 %
Moderate	21	42 %
Inadequate	20	40 %

3. Attitude Toward Breast Cancer Screening

Table 2: Shows the Attitude Toward Breast Cancer Screening

Attitude Level		Percentage (%)
Favorable	28	56 %
Neutral	17	34 %
Unfavorable	5	10 %

4. Practice of Breast Cancer Screening:

Table 3: Shows the Practice of Breast Cancer Screening Methods

Screening Practice	Response	Frequency (n)	Percentage (%)
Breast Self-Examination	Regularly	3	6%
	Occasionally	9	18%
	Never	38	76%
Clinical Breast Exam	Done at least once	5	10%
	Never	45	90%
Mammography	Done	2	4%
	Never	48	96%

5. Association Between Knowledge, Attitude, Practice, and Demographic Variables:

Statistical analysis using the Chi-square test showed a significant association between knowledge scores and educational status ($p < 0.05$). Similarly, a positive attitude toward screening was significantly associated with higher education and previous exposure to breast health awareness ($p < 0.05$). Practice of screening methods was also found to be significantly associated with knowledge levels, employment status, and family history of breast cancer ($p < 0.05$).

6. Expected Outcomes:

- Understanding the level of awareness and gaps in screening practices.
- Identification of misconceptions and negative attitudes.
- Basis for planning community health education programs.

6. Significance of the Study:

This study will help public health nurses and community health workers design and implement focused interventions to improve breast cancer screening behavior among middle-aged and older women in urban slums, contributing to early diagnosis and better prognosis.

N = 50

IV DISCUSSION

The present study aimed to assess the knowledge, attitude, and practice (KAP) related to breast cancer screening among women above the age of 35 years in Velakinar, Coimbatore. The findings revealed that a considerable proportion of women had inadequate knowledge, moderate attitude, and poor screening practices, highlighting the need for targeted health education and community interventions.

Knowledge

In the current study, only 18% of women demonstrated adequate knowledge about breast cancer and its screening methods. This finding aligns with previous studies conducted in similar settings. A study by Saxena et al. (2020) in urban India reported that less than 25% of women had sufficient knowledge of breast cancer symptoms, and most were unaware of screening techniques like mammography and clinical breast examination. Similarly, Gupta et al. (2018) found that misinformation and lack of health literacy were major contributing factors to low awareness in semi-urban communities. (6)

Most women in the present study could not correctly identify key risk factors such as family history, obesity, or late pregnancy. This limited awareness is concerning because early identification of risk enables prompt screening and diagnosis. The low awareness of breast self-examination (BSE) (only 30% heard of it) also mirrors the findings of Balu & Mohan (2017), who highlighted a general reluctance or unfamiliarity with breast self-care practices in Indian women, especially in low-resource settings. (7)

Attitude

Although the knowledge level was low, a relatively higher proportion (56%) of participants had a favourable attitude towards breast cancer screening. Many expressed belief in the benefits of early detection and agreed that women should perform

regular BSE or undergo screening. This is a promising finding, as positive attitudes can often be converted into action through appropriate education and encouragement. However, barriers such as fear of cancer diagnosis, embarrassment, cultural beliefs, and lack of female doctors continue to affect the behaviour of women toward screening.

The gap between attitude and practice is not uncommon. Studies have shown that even women who believe in the importance of screening often do not follow through unless motivated by strong community or clinical interventions (8).

Practice

The most alarming finding of this study was the poor practice of breast cancer screening methods. Only 6% of participants reported performing BSE regularly, while 18% did it occasionally. Clinical breast examination (CBE) was done by 10%, and only 4% had undergone mammography. This trend is consistent with the findings of Patra et al. (2021), who documented that among Indian women aged above 35 years, fewer than 10% practiced regular screening, and most relied on symptoms or physician advice before seeking medical attention.(9)

Barriers such as fear, lack of time, perceived cost, and absence of female healthcare providers continue to hinder uptake of screening services. This underscores the need for nurse-led community awareness programs and mobile screening camps.

Associations

The study also found statistically significant associations between educational status and knowledge levels ($p < 0.05$), as well as between employment status, family history of cancer, and screening practices ($p < 0.05$). These associations suggest that socio-demographic factors play a critical role in shaping women's access to health information and their likelihood of engaging in preventive behaviors. These findings echo the results of Sundari et al. (2021), who found that higher educational and income levels correlated strongly with better health practices in urban and semi-urban Tamil Nadu.(10)

V CONCLUSION

Overall, the study findings highlight a significant gap in knowledge and practice despite a moderately positive attitude. This discrepancy suggests that women are willing to participate in screening programs but lack the necessary awareness, access, and motivation. Tailored, culturally sensitive, community-based interventions—especially those led by female health workers or nurses—can play a key role in bridging this gap.

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X CONTRIBUTORS

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