



## Enhancing Breast Cancer Awareness Among Women: A Cross-sectional Study on Knowledge, Attitudes, and Practices

Maria L. Fernandez <sup>1\*</sup>, Kevin A. Morris <sup>2</sup> and Ayesha Rahman <sup>3</sup>

<sup>1</sup> Department of Community Medicine, Central Health University, Brazil

<sup>2</sup> Consultant Oncologist, Sunrise Oncology Institute, USA

<sup>3</sup> Research Fellow, Women's Health Initiative, Global Research Foundation, Omal

\*Corresponding author: Maria L. Fernandez, Department of Community Medicine, Central Health University, Brazil

Received: 04 June, 2025 | Accepted: 10 June, 2025 | Published: 16 June, 2025

**Citation:** Maria L. Fernandez, Kevin A. Morris, Ayesha Rahman, (2025) Enhancing Breast Cancer Awareness Among Women: A Cross-sectional Study on Knowledge, Attitudes, and Practices J. Journal of Integrative Cancer Science and Care 1(1): dx.doi.org/JICSC/PP.0003

**Copyright:** © 2025 Maria L. Fernandez. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

### Abstract

Breast cancer remains a leading cause of cancer-related morbidity and mortality among women globally. Early detection through awareness and regular screening significantly improves survival rates. This study aimed to assess the level of breast cancer awareness among women aged 20–60 years in an urban population, focusing on knowledge, attitudes, and preventive practices. A cross-sectional survey involving 600 women was conducted using a structured questionnaire. Findings revealed that while general awareness of breast cancer existed, detailed knowledge about risk factors, symptoms, and screening methods was limited. Only 32% of participants practiced regular breast self-examination, and 18% had ever undergone a clinical breast examination. Educational level and access to healthcare information showed a significant correlation with awareness levels. The results highlight a pressing need for community-based awareness programs and integration of breast health education into primary care services to empower women for early detection and prevention.

**Keywords:** breast cancer, awareness, women's health, screening, early detection, health education, preventive care

### Introduction

Breast cancer is the most frequently diagnosed cancer among women worldwide and remains a major public health concern. According to the World Health Organization (WHO), over 2.3 million women were

diagnosed with breast cancer in 2020, and approximately 685,000 died from the disease. Despite advances in treatment, late-stage diagnosis continues to contribute to high mortality rates, especially in low- and middle-income

countries. Awareness about breast cancer—its symptoms, risk factors, and the importance of screening—is crucial for early detection and successful treatment. Yet, in many communities, knowledge about breast health remains insufficient due to cultural beliefs, limited access to health education, and systemic barriers in healthcare delivery. This study explores the current state of breast cancer awareness among women in an urban setting, with the goal of identifying gaps in knowledge and practices, and informing future health education strategies.

## Material and Methods

### Study Design and Population

A descriptive cross-sectional study was conducted between March and July 2025 among women residing in the metropolitan area of Brookville City. Women aged 20–60 years were eligible to participate, regardless of their educational or occupational background.

### Sampling Method

A multistage random sampling technique was used to recruit participants from community health centers, workplaces, and local women's associations. A total of 600 women completed the questionnaire.

### Data Collection Tool

A pre-tested, structured questionnaire was administered in face-to-face interviews. The tool was divided into four sections: sociodemographic data, knowledge about breast cancer, attitudes toward prevention, and screening practices. It was available in both English and the local dialect to enhance comprehension.

### Ethical Considerations

Ethical approval was obtained from the Institutional Review Board of Central Health University. Verbal and written informed consent were obtained from all participants. Confidentiality and anonymity were maintained throughout the study.

### Data Analysis

Data were coded and analyzed using SPSS version 26. Descriptive statistics were used to summarize demographics and response frequencies. Chi-square tests were applied to examine associations between awareness levels and selected variables (e.g., education, age).

## Results

Out of 600 respondents, 580 completed the survey with valid responses (response rate: 96.7%). The majority were between the ages of 30–50 years. Approximately 60% had secondary education or above.

- **Knowledge:** 78% had heard of breast cancer, but only 41% correctly identified at least three common symptoms. Knowledge of risk factors such as family history (52%) and age (34%) was moderate.
- **Attitudes:** 68% believed breast cancer is curable if detected early. However, 27% expressed fear or stigma associated with being diagnosed.
- **Practices:** Only 32% performed breast self-examinations (BSE) monthly, while 18% had undergone a clinical breast examination (CBE) at least once in their lives. Mammography awareness was low (22%), and only 9% had ever had one.

A statistically significant association was found between higher education and better knowledge and practice scores ( $p < 0.01$ ).

## Discussion

The findings of this study reflect a concerning gap between general awareness and actionable knowledge or preventive behavior. While most participants had heard of breast cancer, the depth of their understanding was limited. This gap is consistent with findings from similar studies in developing urban contexts.

Barriers such as fear of diagnosis, cultural stigma, and lack of access to female healthcare providers may hinder proactive health-seeking behavior. The low practice of BSE and CBE indicates missed opportunities for early detection. Integration of breast health education in community clinics, media outreach, and school curricula could help bridge this gap.

In addition, healthcare workers can be trained to provide routine counseling during primary care visits, particularly targeting women with lower education or limited health literacy.

## Conclusion

This study underscores the need for enhanced breast cancer awareness campaigns that not only inform but also empower women to take preventive actions. Multisectoral efforts—including public health initiatives, educational programs, and accessible screening services—are essential to reduce the burden of breast cancer and improve outcomes through early detection.

## References

1. World Health Organization. (2021). Breast cancer.
2. Bray F, Ferlay J, Soerjomataram I, Siegel RL, Torre LA, Jemal A. (2018). Global cancer statistics 2018: GLOBOCAN estimates. *CA Cancer J Clin*, 68(6), 394–424.
3. American Cancer Society. (2023). Breast Cancer Early Detection and Diagnosis.
4. Gupta A, Shridhar K, Dhillon PK. (2015). A review of breast cancer awareness among women in India: Most are aware, few practice. *J Cancer Educ*, 30(1), 134–137.
5. Doshi D, Reddy BS, Kulkarni S, Karunakar P. (2012). Breast self-examination: Knowledge, attitude, and practice among female dental students in Hyderabad City, India. *Indian J Palliat Care*, 18(1), 68–73.
6. Oza AM, Boyd N. (2020). Breast Cancer Prevention: Risk Factors and Screening. *Nat Rev Clin Oncol*, 17(9), 522–538.



