

## A DESCRIPTIVE STUDY TO ASSESS THE KNOWLEDGE OF BREAST CANCER SCREENING AMONG WOMEN IN SELECTED AREAS OF PUNE CITY

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### Abstract

The study titled "A descriptive study to assess the knowledge of breast cancer screening among women in selected areas of Pune city" aimed to assess the knowledge regarding breast cancer screening among women. The knowledge levels among the participants varied the 64% of samples had moderate knowledge regarding breast cancer screening. The 35.33% of samples had excellent knowledge regarding breast cancer screening. The 0.66 % of samples had poor knowledge regarding breast cancer screening. Breast cancer screening is critical for early detection, improving survival rates, and enabling less invasive treatment options. This study focuses on assessing women's knowledge of breast cancer screening in selected areas of Pune city, highlighting the importance of regular screening for early intervention. A descriptive research design was employed with a sample of 300 women from local Pune communities. A standardized knowledge survey, validated and tested for reliability (0.8985), was used to assess awareness. The results were correlated with demographic variables, such as age, education, and family history of breast cancer.

Ultimately, the findings aim to inform strategies for increasing awareness, improving screening rates, and reducing mortality associated with breast cancer. This work contributes to ongoing efforts to enhance women's health outcomes by emphasizing early detection and effective management of breast cancer through regular screening.

**(Keywords** - knowledge, breast cancer, screening, assess, selected areas)

### INTRODUCTION

Breast cancer screening programs are essential for detecting breast cancer at an early stage in people who do not have symptoms, thereby significantly improving treatment success and survival rates. Generally

Starting in women aged 40 and older, these screenings use different methods to detect abnormalities before symptoms appear.

Mammography, a key method in breast cancer screening, uses low-energy X-rays to produce images of breast tissue. It identifies tumors too small to be felt by hand, allowing for early treatment. Digital mammography has become common recently due to improved image quality and easier storage and sharing capabilities. Health care providers perform clinical breast exams (CBEs), during which they feel the breasts to detect.

Lumps or irregularities. Although ECS alone may not be as effective as mammography, it works well with imaging tests and helps detect worrisome findings. Women with dense breast tissue may need additional screening methods such as ultrasound or MRI. Ultrasound uses sound waves to take pictures of breast tissue and helps evaluate abnormalities seen on mammograms. MRI (magnetic resonance imaging) provides detailed images of the breast and can detect cancers more effectively in some cases, but it costs more and requires special equipment and expertise to interpret. The initiation of screening programs requires significant public health initiatives to inform women about the value of regular screening, the potential harms and benefits, and the need for additional diagnostic tests in case of problems. This effort also includes ensuring that testing centers are easily accessible, especially in areas where resources are limited, and raising awareness among health care providers so that they can quickly refer patients to testing centers and respond to screening standards. Ultimately, breast cancer screening aims to reduce deaths by detecting cancers at an early stage, when treatment is most effective. Research continues to improve screening rules and technologies, trying to find a balance between detecting problems and stopping too many false alarms and unnecessary treatments. As screening tools improve, the plan remains the same: save lives by detecting problems early and getting help right away.

### **NEED OF STUDY**

Breast cancer screening is essential for early detection and treatment of cancer, increasing survival rates and improving women's lives. Regular screening helps detect breast cancer at an early stage,

Often before symptoms appear, so treatments work better and are less difficult. Mammography, The main screening test, detects problems such as lumps or calcium deposits in breast tissue that could mean cancer.

Early detection helps reduce deaths by catching problems early enough that they can be treated. It offers women less difficult treatment options, possibly avoiding the need for major surgery or heavy chemotherapy. Screening also helps identify people at high risk who can get help earlier or monitor their health more closely. Breast cancer screening is really crucial because it is one of the most common cancers in the world, affecting many women every year. It happens more as women get older, so it is important to get checked often. Although tests like mammograms are not always perfect and carry risks, catching problems early is much more important than worrying.

In summary, breast cancer screening is essential to increase survival rates, reduce treatment side effects, and achieve better outcomes for women with breast cancer. Regular screenings provide women with the information and opportunity to manage their health and make wise choices about their well-being.

### **AIM OF THE STUDY**

An aim of the study "A descriptive study to assess the knowledge regarding breast cancer screening among women in selected areas of Pune city."

### **RESEARCH METHODOLOGY**

The research employed a non-experimental, descriptive design and used a quantitative research approach to assess participants' understanding. The study included 300 people, with participants selected through a non-probability purposive sampling method from selected areas in Pune city. A structured knowledge questionnaire was developed to assess the knowledge

regarding breast cancer screening among women. The tool's reliability and validity were confirmed through expert review and a pilot study. Data were collected through face-to-face interviews, focusing on demographic variables and knowledge-related questions. The sample population included women aged 30 to 60, with varying educational and occupational backgrounds

## RESULTS

### 1) Analysis of data related to demographic variables

The demographic distribution of the 300 samples is summarized as follows:

In terms of age, the largest proportion of participants The majority, 34%, of the women were between 30 and 37 years old, 28.66% of the women were between 38 and 45 years old, 21.33% of the women were between 46 and 53 years old, 16% of the women were between 54 and 60 years old.

Regarding educational qualifications, the majority, 47% of women, have a secondary school, 43% of women have completed primary and secondary education, 5.66% of women have completed higher education, 4.33% of women completed a course certification program.

With respect to occupation, The majority 50.66% of the women were housewives, 34% of women are employed, 15.33% of women are married.

The family monthly income -wise distribution revealed that The majority (41.66%) of women's household income is less than 10,000, 41.33% of women's household income is between 10,001 and 20,000, 9.33% of women's household income is between 20,001 and 30,000, 7.66% of women's household income is more than 30,000.

Finally, in terms of family history of breast cancer, The majority (90.66%) of the women had no family history of breast cancer, 9.33% of women have a family history of breast cancer.

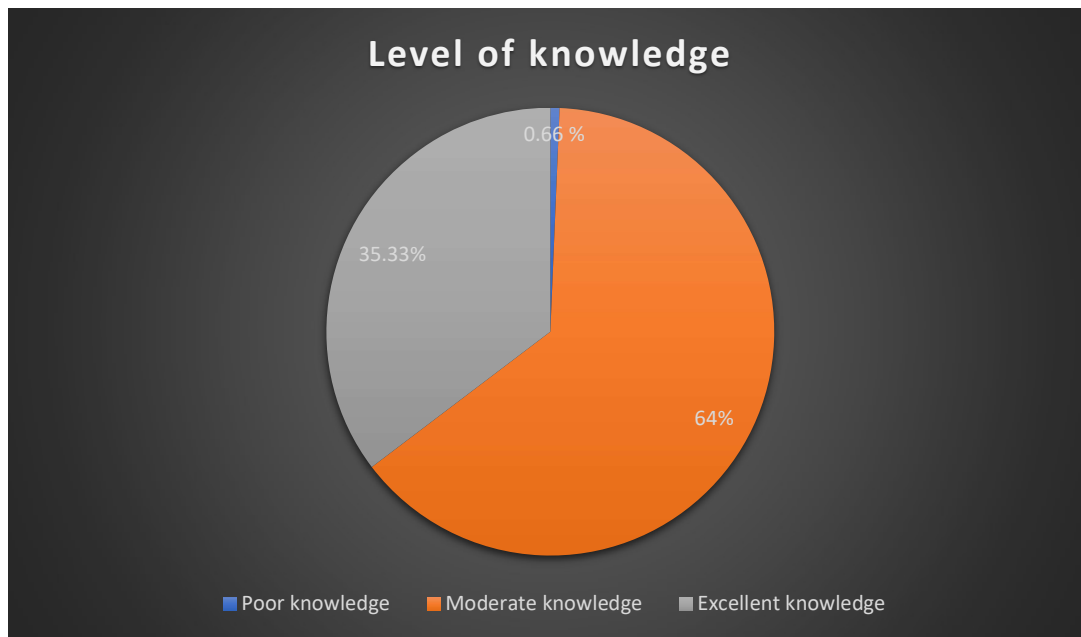
This distribution highlights the diversity of the sample in terms of age, education, occupation, family monthly income, and family history of breast cancer, which can provide a comprehensive basis for further analysis.

### 2) Analysis of knowledge regarding breast cancer screening among women.

| n=300               |           |            |       |      |
|---------------------|-----------|------------|-------|------|
| Knowledge level     | Frequency | Percentage | Mean  | SD   |
| Low knowledge       | 2         | 0.66%      | 15.14 | 2.52 |
| Average knowledge   | 192       | 64%        |       |      |
| Excellent knowledge | 106       | 35.33%     |       |      |

Table no – 1 shows that, The 64% of samples had moderate knowledge regarding breast cancer screening. The 35.33% of samples had excellent knowledge regarding breast cancer screening. The 0.66 % of samples had poor knowledge regarding breast cancer screening.

**n = 300**



The pie chart shows the percentage distribution of knowledge about breast cancer screening.

#### DISCUSSION OF THE STUDY

The main purpose of this study was to assess the knowledge regarding breast cancer screening among women. The researchers decided to use a quantitative research approach for this study. They chose a non-experimental, descriptive design to assess people's knowledge about breast cancer screening in specific hospitals of Pune city. The study population included individuals living in Pune. The researchers selected a sample size of 300 people using non-probability purposive sampling. After taking collecting data from 300 people result shows that, The 64% of samples had moderate knowledge regarding breast cancer screening. The 35.33% of samples had excellent knowledge regarding breast cancer screening. The 0.66 % of samples had poor knowledge regarding breast cancer screening.

The present study provides valuable insights into the understanding of breast cancer screening among women in Pune. While the overall knowledge scores were relatively high, The lack of significant associations between demographic factors and the level of knowledge suggests that awareness campaigns and educational initiatives should be designed to be inclusive, catering to people across diverse age groups, educational backgrounds, and occupations. This comprehensive approach is essential to ensure that the necessary information and support reach all people, addressing the existing gaps in knowledge and empowering them about breast cancer screening

#### CONCLUSION

Overall study focused on objective based assessment of knowledge on breast cancer screening, also highlighted literature review on significant differences in women's knowledge and skills about breast cancer screening influenced by factors such as education socio-economic status, cultural beliefs and access to health services. also several studies moderate awareness of breast cancer symptoms, there remains a significant gap in understanding the importance of regular screening methods. The 35.33% of samples had excellent knowledge regarding breast cancer screening. The 0.66 % of samples had poor knowledge regarding breast cancer screening.

Breast cancer screening is critical for early detection, improving survival rates, and enabling less invasive treatment options.

The findings of the study reveals that the majority of people possess moderate understanding of breast cancer screening. The absence of a significant relationship between demographic factors and knowledge indicates that education programs should target all people, regardless of their demographic background, to ensure equitable and comprehensive awareness of breast cancer screening. Study also shows how findings can be utilized in nursing practice, education and administration and research.

This research aims to bridge the gaps by promoting educational interventions and enhancing access to screening services. It underscores the need for comprehensive public health initiatives, awareness campaigns, and community engagement to foster informed decision-making among women. The study also calls for improved collaboration among healthcare providers to ensure timely referrals and support for high-risk populations.

### **CONFLICT OF INTEREST**

We, researchers, understand that conflict of interest refers to situations in which financial or other personal considerations may compromise our judgment in evaluating, conducting, or reporting research. We hereby declare that we do not have any personal conflict of interest that may arise from our application and submission of our research proposal.

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### **References**

1. Bapat RS, Bhattad R, Dhabadgav R. Awareness, knowledge and practice of self-breast examination in young women. *Indian Journal of Gynecologic Oncology*. 2023 Mar;21(1):4.
2. Bhore MP, Mahadalkar MP. A study to assess the knowledge regarding breast cancer among the women age group 40 to 60 years in urban slums of Pune city. *Innovational: Journal of Nursing and Healthcare*. 2016:453-8.
3. Dey S, Sharma S, Mishra A, Krishnan S, Govil J, Dhillon PK. Breast cancer awareness and prevention behavior among women of Delhi, India: identifying barriers to early detection. *Breast Cancer: Basic and Clinical Research*. 2016 Jan;10:BCBCR-S40358.
4. Lissa MP. A Study to Assess the Effectiveness of Planned Teaching Programme on Knowledge Regarding Breast Self Examination Among Women in a Selected Social Welfare Centre at Mangaluru (Master's thesis, Rajiv Gandhi University of Health Sciences (India)).
5. Shelke MS. Study of assess the effect of health education programme on knowledge and practices related to common selected reproductive tract infections among the married women in rural area of Pune District (Doctoral dissertation, Tilak Maharashtra Vidyapeeth).

6. Mallapur AA, Dorle AS, Manjula R, Patil M. A cross-sectional study of Gynecological morbidities among married women ( $\geq 30$  years) in Bagalkot city. *Medica Innovatica*. 2017 Jul 1;6(2).
7. Sreedevi A, Quereshi MA, Kurian B, Kamalamma L. Screening for breast cancer in a low middle income country: predictors in a rural area of Kerala, India. *Asian Pacific journal of cancer prevention*. 2014;15(5):1919-24.
8. Yerpude PN, Jogdand KS. Knowledge and practice of breast self-examination (BSE) among females in a rural area of South India. *National Journal of Community Medicine*. 2013 Jun 30;4(02):329-32.
9. Kumawat P, Gupta A, Gaur KL, Meena S, Sisodia GS, Jahan I. Awareness and practice of breast self-examination (BSE) with its socio-demographic associates: a cross-sectional survey in the capital of Rajasthan, India. *MGM Journal of Medical Sciences*. 2022 Apr 1;9(2):196-201.
10. Jadhav BN, Abdul Azeez EP, Mathew M, Senthil Kumar AP, Snegha MR, Yuvashree G, Mangalagowri SN. Knowledge, attitude, and practice of breast self-examination is associated with general self-care and cultural factors: a study from Tamil Nadu, India. *BMC Women's Health*. 2024 Mar 2;24(1):151.
11. Priyadarshini P, Sarathi S, Hemavathy V. A study on assess the knowledge towards warning signs of breast cancer and prevention among the 4th year b. sc nursing student from SBCN. *Cardiometry*. 2022 Dec 1(25):108-13.
12. Dahiya N, Basu S, Singh MC, Garg S, Kumar R, Kohli C. Knowledge and practices related to screening for breast cancer among women in Delhi, India. *Asian Pacific journal of cancer prevention: APJCP*. 2018;19(1):155.
13. Vora K, McQuatters L, Saiyed S, Gupta P. Knowledge, attitudes, and barriers to screening for cervical cancer among women in India: a review. *WCRJ*. 2020;7:e1504.
14. Taneja N, Chawla B, Awasthi AA, Shrivastav KD, Jaggi VK, Janardhanan R. Knowledge, attitude, and practice on cervical cancer and screening among women in India: a review. *Cancer Control*. 2021 Apr 29;28:10732748211010799.
15. Sadler GR, Dhanjal SK, Shah NB, Shah RB, Ko C, Anghel M, Harshburger R. Asian Indian women: knowledge, attitudes and behaviors toward breast cancer early detection. *Public Health Nursing*. 2001 Sep;18(5):357-63.
16. Bapat RS, Bhattad R, Dhabadgav R. Awareness, knowledge and practice of self-breast examination in young women. *Indian Journal of Gynecologic Oncology*. 2023 Mar;21(1):4.
17. Pandit RB, Tayade MP, Tekale MS, Sul MK, Ashvin M. A study to assess the effectiveness of Structured Teaching Programme on Knowledge and Attitude among the Adolescent girl regarding Breast Self Examination in selected college of Pune city. *Hindu*.;53:88-33.
18. Jadhav M, Krishnan L, Dixit S, Jadhav S, Gaikwad A, Busheri L, Verghese B, Patil A, Koppiker C. Performance of CBE and Mammography for Breast Cancer Screening in Indian Setup. *Indian Journal of Public Health Research & Development*. 2017 Oct 1;8(4).

19. Polishwala S, Patankar S. The Assessment and Comparison of the Knowledge of Breast Self-Examination and Breast Carcinoma Among Health Care Workers and the General Population in an Urban Setting. *Cureus*. 2023 Mar;15(3).
20. Suwannaporn S, Chuemchit M. Breast Self-examination Among AKHA Women (Hill Tribe Group) in Chiang Rai, Thailand. *Journal of Immigrant and Minority Health*. 2022 Jun;24(3):666-72.
21. Thakur N, Vashist S, Mishra A, Duggal RC. A Descriptive Study to Assess the Knowledge Regarding Breast Self-Examination among Women of Age Group 25-45 Years in Rural Area Kurali,(Dhianpura). *Religion*. 2022;7(5):8-75.
22. Aliya B, Azeem F, Ullah R. Knowledge, attitude, and practice of breast cancer screening among female health care professionals of a tertiary care hospital of peshawar. *Journal of Rehman Medical Institute*. 2019;5(4):03-6.
23. Okonkwo QL, Draisma G, Der Kinderen A, Brown ML, de Koning HJ. Breast cancer screening policies in developing countries: a cost-effectiveness analysis for India. *JNCI: Journal of the National Cancer Institute*. 2008 Sep 17;100(18):1290-300.
24. Lissa MP. A Study to Assess the Effectiveness of Planned Teaching Programme on Knowledge Regarding Breast Self Examination Among Women in a Selected Social Welfare Centre at Mangaluru (Master's thesis, Rajiv Gandhi University of Health Sciences (India)).
25. Gupta A, Shridhar K, Dhillon PK. A review of breast cancer awareness among women in India: Cancer literate or awareness deficit?. *European Journal of Cancer*. 2015 Sep 1;51(14):2058-66.
26. Ahuja S, Chakrabarti N. To determine the level of knowledge regarding breast cancer and to increase awareness about breast cancer screening practices among a group of women in a tertiary care hospital in Mumbai, India. *Internet J Public Heal*. 2009;1(1):1-9.